

The purpose of this effort is towards the study of the ionosphere, specifically oriented at Field Aligned Irregularities (FAI) in the f_{of_2} region of the atmosphere.

The System being constructed for this purpose has the following primary requirements:

Polarization: O-Mode

Frequency: 4.5MHz, <50Hz Bandwidth

Antenna Power: (8) 10KW Transmitters

Antenna Gain: 17.1dB

Antenna Type: (4) Cross-Dipole

Modulation: Continuous Wave (CW)

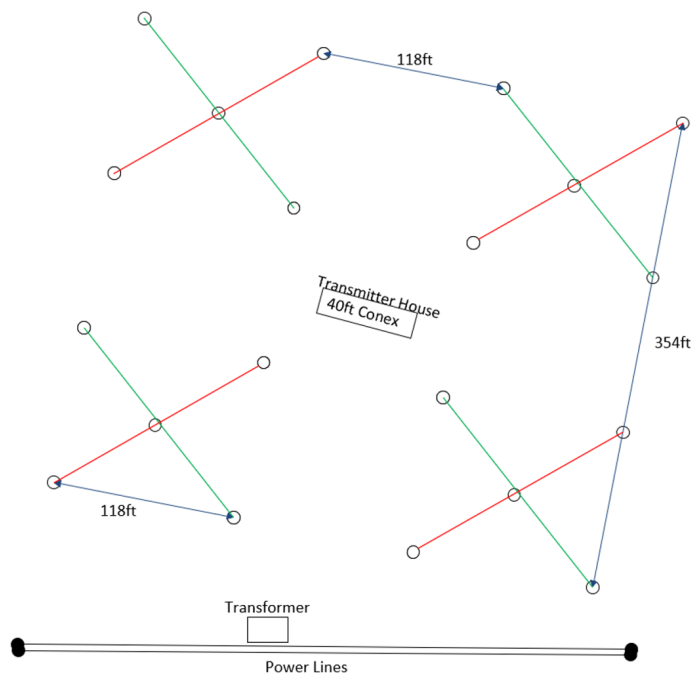
Radiation Orientation: Vertical (90°)

Effective Radiated Power (ERP): 4.296MW (Mean), 6.444MW (Peak)

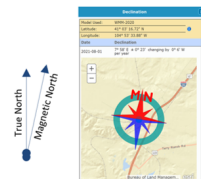
Notes: The Effective Radiated Power (ERP) must be maintained at the minimum of 600KW, however, an ideal ERP of at least 4MW is recommended to produce the data required for this effort.

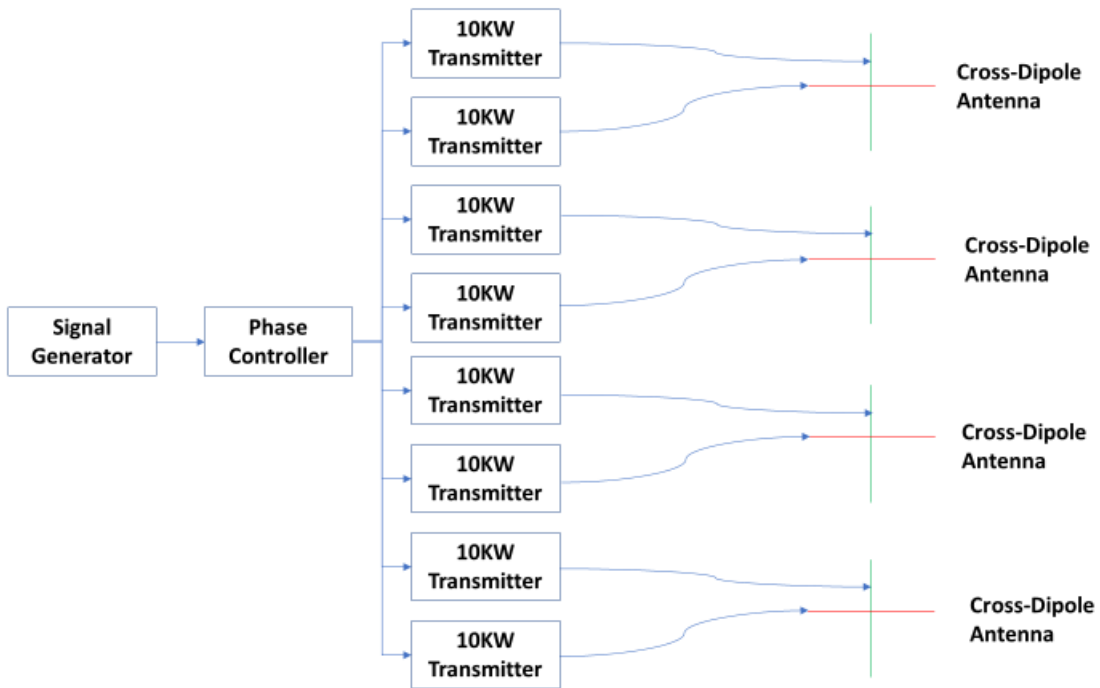
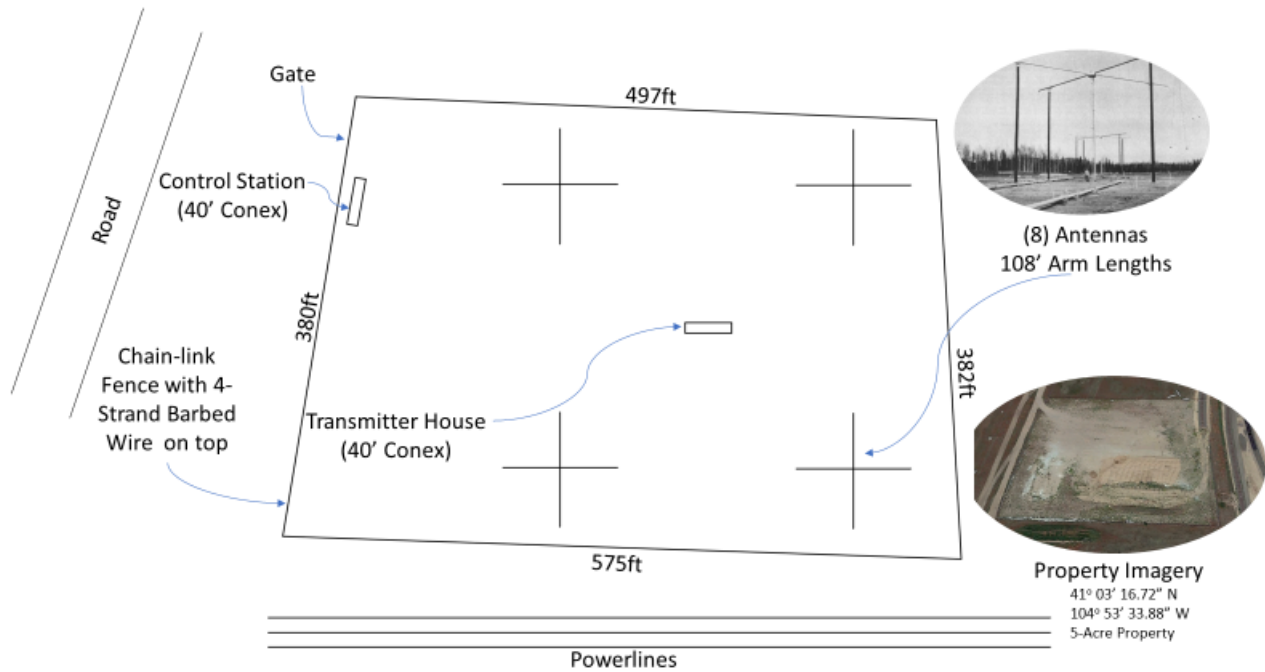
Site Description

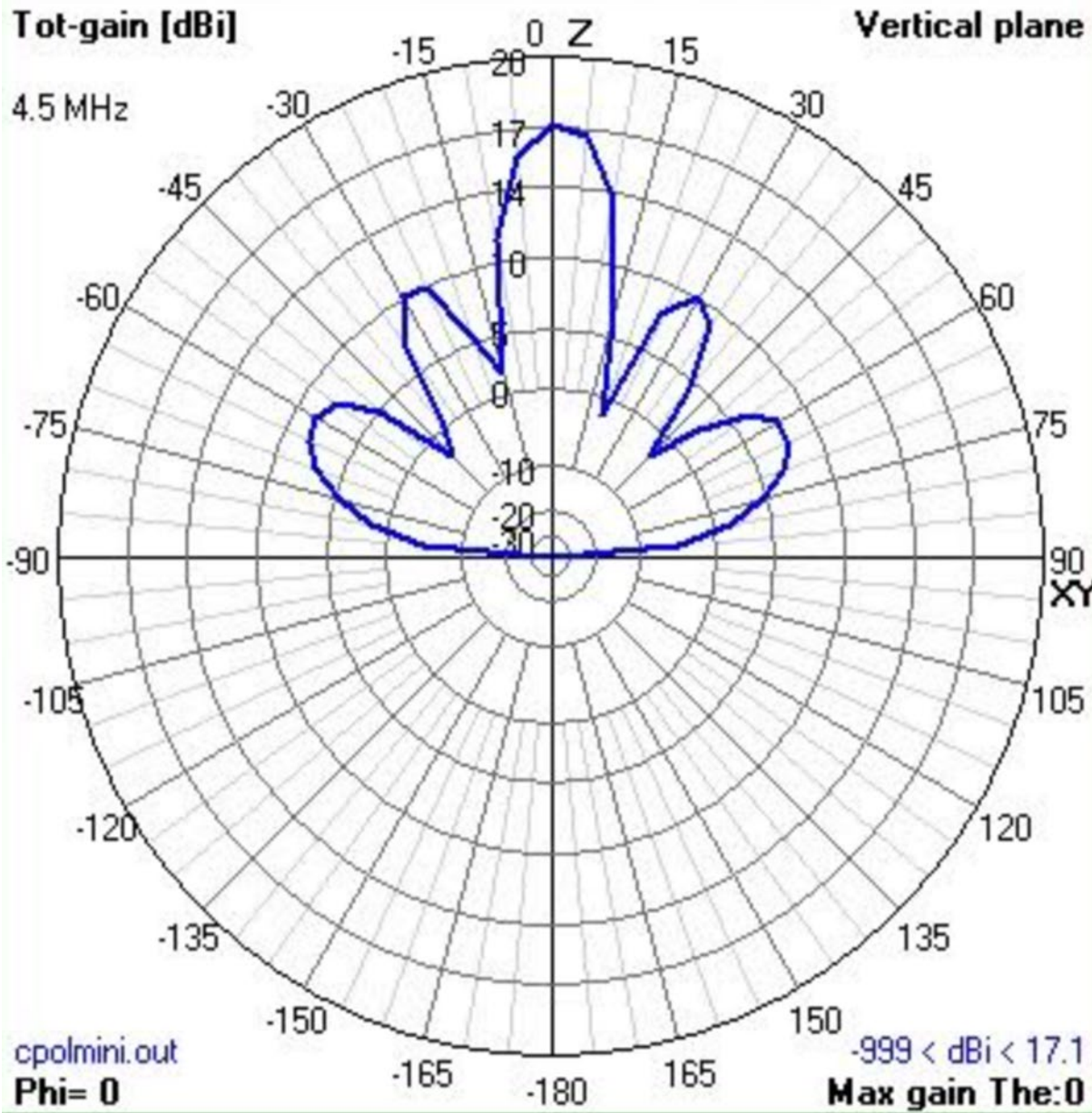
The site is located 10 miles outside of the city of Cheyenne, Wyoming. It is in the Swan Ranch Business Park. The site is in an isolated area of the business park with no businesses located within a quarter mile of the site. The site is in the vicinity of a 500ft tower and a 100ft tall manufacturing building.

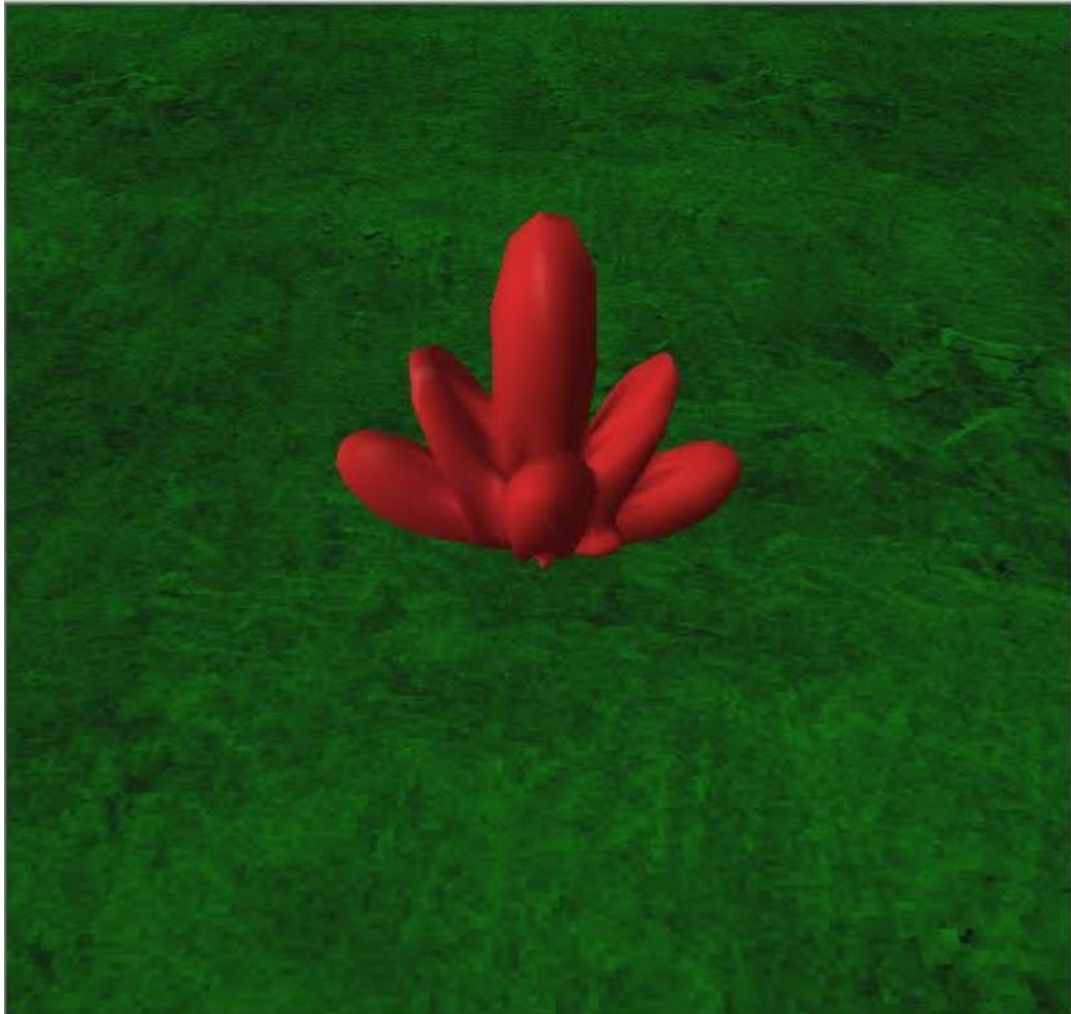


There will be (4) Cross-Dipole Antennas at the Site. The Cross-Dipoles will be created by using two separate Dipole Antennas, independently each fed by a 10KW, 4.5MHz Transmitter. Cross-Dipoles are required to create circular polarization, which is required for this project. Because the Cross-Dipole Antennas are two separate Dipoles, we will have two Baluns. We will be operating unmodulated Continuous Wave (CW), so we are expecting the peak power of each 10KW Transmitter to rise up to 15KW, which is why we require 15KW Baluns. The Feedline used will be LMR-600DB, the Connectors used will be N-Type, and the Antenna Wire used will be 10 Gauge Copper Weld. The center post in the center of the Antenna will be used to support the Baluns and Feedline.









4.5 Mhz
Axis 200 ft
Theta Phi
57 269
< zoom >
Ident Res
Rotc Col
 True rad.
< >
 Axis
 Ground
 Surfaces
Hide struc ▾
Pattern ▾
Tot-gain ▾
 ARRL style
Magnitud ▾
Quality
< >
FPS Tri's
60 2594

NUMERICAL ELECTROMAGNETICS CODE

(NEC-2D)

- - - - COMMENTS - - - -

- - - STRUCTURE SPECIFICATION - - -

COORDINATES MUST BE INPUT IN METERS OR BE SCALED TO METERS BEFORE STRUCTURE INPUT IS ENDED

| WIRE | | | | | | | |
|----------|------------|-----------|------|----------|------------|-----------|--|
| NO. OF | FIRST | LAST | TAG | | | | |
| NO. | X1 | Y1 | SEG. | Z1 | X2 | Y2 | |
| Z2 | RADIUS | SEG. | SEG. | SEG. | NO. | | |
| 1 | 0.71231 | 0.00000 | | 54.64385 | 110.00000 | 0.00000 | |
| 54.64385 | 0.00328 | 11 | | 1 | 11 | 1 | |
| 2 | -218.57539 | 0.00000 | | 54.64385 | -109.28769 | 0.00000 | |
| 54.64385 | 0.00328 | 11 | | 12 | 22 | 2 | |
| 3 | 218.57539 | 0.00000 | | 54.64385 | 327.86308 | 0.00000 | |
| 54.64385 | 0.00328 | 11 | | 23 | 33 | 3 | |
| 4 | -218.57550 | 163.93154 | | 54.64385 | -109.28760 | 163.93154 | |
| 54.64385 | 0.00328 | 11 | | 34 | 44 | 4 | |
| 5 | 218.57539 | 163.93154 | | 54.64385 | 327.86308 | 163.93154 | |
| 54.64385 | 0.00328 | 11 | | 45 | 55 | 5 | |
| 6 | -216.38970 | 325.67732 | | 54.64385 | -109.28760 | 327.86308 | |
| 54.64385 | 0.00328 | 11 | | 56 | 66 | 6 | |
| 7 | 218.57539 | 327.86308 | | 54.64385 | 327.86308 | 327.86308 | |
| 54.64385 | 0.00328 | 11 | | 67 | 77 | 7 | |
| 8 | 0.00000 | 327.86308 | | 54.64385 | 109.28769 | 327.86308 | |
| 54.64385 | 0.00328 | 11 | | 78 | 88 | 8 | |
| 9 | -160.00000 | 370.00000 | | 55.64380 | -160.71231 | 270.00000 | |
| 55.64380 | 0.00328 | 11 | | 89 | 99 | 9 | |
| 10 | 60.00000 | 370.00000 | | 55.64380 | 59.28769 | 270.00000 | |
| 55.64380 | 0.00328 | 11 | | 100 | 110 | 10 | |
| 11 | 270.00000 | 370.00000 | | 55.64380 | 269.28769 | 270.00000 | |
| 55.64380 | 0.00328 | 11 | | 111 | 121 | 11 | |
| 12 | -160.00000 | 200.00000 | | 55.64380 | -160.71231 | 100.00000 | |
| 55.64380 | 0.00328 | 11 | | 122 | 132 | 12 | |

```

13 270.00000 210.00000 55.64380 269.28769 110.00000
55.64380 0.00328 11 133 143 13
14 -159.28769 50.00000 55.64380 -160.00000 -50.00000
55.64380 0.00328 11 144 154 14
15 60.71231 50.00000 55.64380 60.00000 -50.00000
55.64380 0.00328 11 155 165 15
16 280.00000 50.00000 55.64380 279.28769 -50.00000
55.64380 0.00328 11 166 176 17

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STRUCTURE SCALED BY FACTOR 0.30480

TOTAL SEGMENTS USED= 176 NO. SEG. IN A SYMMETRIC CELL= 176
SYMMETRY FLAG= 0

- MULTIPLE WIRE JUNCTIONS -
JUNCTION SEGMENTS (- FOR END 1, + FOR END 2)
NONE

- - - - SEGMENTATION DATA - - - -

COORDINATES IN METERS

I+ AND I- INDICATE THE SEGMENTS BEFORE AND
AFTER I

| SEG. WIRE NO. RADIUS | COORDINATES OF SEG. CENTER CONNECTION DATA TAG | | | | SEG. LENGTH | ORIENTATION ANGLES | |
|-------------------------------|---|---------|----------|---------|----------------|--------------------|------|
| | I- | I | I+ | NO. | | ALPHA | BETA |
| 1 | 1.73124 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 0 | 1 | 2 | 1 | | | |
| 2 | 4.75951 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 1 | 2 | 3 | 1 | | | |
| 3 | 7.78777 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 2 | 3 | 4 | 1 | | | |
| 4 | 10.81603 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 3 | 4 | 5 | 1 | | | |
| 5 | 13.84429 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 4 | 5 | 6 | 1 | | | |
| 6 | 16.87256 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 5 | 6 | 7 | 1 | | | |
| 7 | 19.90082 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 6 | 7 | 8 | 1 | | | |
| 8 | 22.92908 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 7 | 8 | 9 | 1 | | | |
| 9 | 25.95734 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |
| 0.00100 | 8 | 9 | 10 | 1 | | | |
| 10 | 28.98561 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 | |

| | | | | | | | |
|---------|----|-----------|----------|----------|---------|---------|---------|
| 0.00100 | 9 | 10 | 11 | 1 | | | |
| | 11 | 32.01387 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 10 | 11 | 0 | 1 | | | |
| | 12 | -65.10765 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 0 | 12 | 13 | 2 | | | |
| | 13 | -62.07938 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 12 | 13 | 14 | 2 | | | |
| | 14 | -59.05112 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 13 | 14 | 15 | 2 | | | |
| | 15 | -56.02286 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 14 | 15 | 16 | 2 | | | |
| | 16 | -52.99460 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 15 | 16 | 17 | 2 | | | |
| | 17 | -49.96633 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 16 | 17 | 18 | 2 | | | |
| | 18 | -46.93807 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 17 | 18 | 19 | 2 | | | |
| | 19 | -43.90981 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 18 | 19 | 20 | 2 | | | |
| | 20 | -40.88154 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 19 | 20 | 21 | 2 | | | |
| | 21 | -37.85328 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 20 | 21 | 22 | 2 | | | |
| | 22 | -34.82502 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 21 | 22 | 0 | 2 | | | |
| | 23 | 68.13591 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 0 | 23 | 24 | 3 | | | |
| | 24 | 71.16417 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 23 | 24 | 25 | 3 | | | |
| | 25 | 74.19243 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 24 | 25 | 26 | 3 | | | |
| | 26 | 77.22070 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 25 | 26 | 27 | 3 | | | |
| | 27 | 80.24896 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 26 | 27 | 28 | 3 | | | |
| | 28 | 83.27722 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 27 | 28 | 29 | 3 | | | |
| | 29 | 86.30548 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 28 | 29 | 30 | 3 | | | |
| | 30 | 89.33375 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 29 | 30 | 31 | 3 | | | |
| | 31 | 92.36201 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 30 | 31 | 32 | 3 | | | |
| | 32 | 95.39027 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 31 | 32 | 33 | 3 | | | |
| | 33 | 98.41854 | 0.00000 | 16.65544 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 32 | 33 | 0 | 3 | | | |
| | 34 | -65.10768 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 0 | 34 | 35 | 4 | | | |
| | 35 | -62.07941 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 34 | 35 | 36 | 4 | | | |
| | 36 | -59.05114 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |

| | | | | | | | |
|---------|----|-----------|----------|----------|---------|---------|---------|
| 0.00100 | 35 | 36 | 37 | 4 | | | |
| | 37 | -56.02287 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 36 | 37 | 38 | 4 | | | |
| | 38 | -52.99460 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 37 | 38 | 39 | 4 | | | |
| | 39 | -49.96634 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 38 | 39 | 40 | 4 | | | |
| | 40 | -46.93807 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 39 | 40 | 41 | 4 | | | |
| | 41 | -43.90980 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 40 | 41 | 42 | 4 | | | |
| | 42 | -40.88153 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 41 | 42 | 43 | 4 | | | |
| | 43 | -37.85326 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 42 | 43 | 44 | 4 | | | |
| | 44 | -34.82499 | 49.96633 | 16.65545 | 3.02827 | 0.00000 | 0.00000 |
| 0.00100 | 43 | 44 | 0 | 4 | | | |
| | 45 | 68.13591 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 0 | 45 | 46 | 5 | | | |
| | 46 | 71.16417 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 45 | 46 | 47 | 5 | | | |
| | 47 | 74.19244 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 46 | 47 | 48 | 5 | | | |
| | 48 | 77.22070 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 47 | 48 | 49 | 5 | | | |
| | 49 | 80.24896 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 48 | 49 | 50 | 5 | | | |
| | 50 | 83.27722 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 49 | 50 | 51 | 5 | | | |
| | 51 | 86.30549 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 50 | 51 | 52 | 5 | | | |
| | 52 | 89.33375 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 51 | 52 | 53 | 5 | | | |
| | 53 | 92.36201 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 52 | 53 | 54 | 5 | | | |
| | 54 | 95.39027 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 53 | 54 | 55 | 5 | | | |
| | 55 | 98.41854 | 49.96633 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 54 | 55 | 0 | 5 | | | |
| | 56 | -64.47173 | 99.29673 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 0 | 56 | 57 | 6 | | | |
| | 57 | -61.50403 | 99.35730 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 56 | 57 | 58 | 6 | | | |
| | 58 | -58.53633 | 99.41786 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 57 | 58 | 59 | 6 | | | |
| | 59 | -55.56862 | 99.47843 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 58 | 59 | 60 | 6 | | | |
| | 60 | -52.60092 | 99.53899 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 59 | 60 | 61 | 6 | | | |
| | 61 | -49.63322 | 99.59956 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 60 | 61 | 62 | 6 | | | |
| | 62 | -46.66552 | 99.66012 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |

| | | | | | | | |
|---------|----|-----------|----------|----------|---------|---------|---------|
| 0.00100 | 61 | 62 | 63 | 6 | | | |
| | 63 | -43.69782 | 99.72069 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 62 | 63 | 64 | 6 | | | |
| | 64 | -40.73012 | 99.78125 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 63 | 64 | 65 | 6 | | | |
| | 65 | -37.76241 | 99.84182 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 64 | 65 | 66 | 6 | | | |
| | 66 | -34.79471 | 99.90238 | 16.65545 | 2.96832 | 0.00000 | 1.16914 |
| 0.00100 | 65 | 66 | 0 | 6 | | | |
| | 67 | 68.13591 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 0 | 67 | 68 | 7 | | | |
| | 68 | 71.16417 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 67 | 68 | 69 | 7 | | | |
| | 69 | 74.19244 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 68 | 69 | 70 | 7 | | | |
| | 70 | 77.22070 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 69 | 70 | 71 | 7 | | | |
| | 71 | 80.24896 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 70 | 71 | 72 | 7 | | | |
| | 72 | 83.27722 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 71 | 72 | 73 | 7 | | | |
| | 73 | 86.30549 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 72 | 73 | 74 | 7 | | | |
| | 74 | 89.33375 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 73 | 74 | 75 | 7 | | | |
| | 75 | 92.36201 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 74 | 75 | 76 | 7 | | | |
| | 76 | 95.39027 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 75 | 76 | 77 | 7 | | | |
| | 77 | 98.41854 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 76 | 77 | 0 | 7 | | | |
| | 78 | 1.51413 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 0 | 78 | 79 | 8 | | | |
| | 79 | 4.54239 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 78 | 79 | 80 | 8 | | | |
| | 80 | 7.57066 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 79 | 80 | 81 | 8 | | | |
| | 81 | 10.59892 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 80 | 81 | 82 | 8 | | | |
| | 82 | 13.62718 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 81 | 82 | 83 | 8 | | | |
| | 83 | 16.65544 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 82 | 83 | 84 | 8 | | | |
| | 84 | 19.68371 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 83 | 84 | 85 | 8 | | | |
| | 85 | 22.71197 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 84 | 85 | 86 | 8 | | | |
| | 86 | 25.74023 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 85 | 86 | 87 | 8 | | | |
| | 87 | 28.76849 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |
| 0.00100 | 86 | 87 | 88 | 8 | | | |
| | 88 | 31.79676 | 99.93267 | 16.65545 | 3.02826 | 0.00000 | 0.00000 |

| | | | | | | | |
|---------|-----|-----------|-----------|----------|---------|---------|-----------|
| 0.00100 | 87 | 88 | 0 | 8 | | | |
| | 89 | -48.77787 | 111.39055 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 0 | 89 | 90 | 9 | | | |
| | 90 | -48.79761 | 108.61964 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 89 | 90 | 91 | 9 | | | |
| | 91 | -48.81734 | 105.84873 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 90 | 91 | 92 | 9 | | | |
| | 92 | -48.83708 | 103.07782 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 91 | 92 | 93 | 9 | | | |
| | 93 | -48.85682 | 100.30691 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 92 | 93 | 94 | 9 | | | |
| | 94 | -48.87656 | 97.53600 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 93 | 94 | 95 | 9 | | | |
| | 95 | -48.89629 | 94.76509 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 94 | 95 | 96 | 9 | | | |
| | 96 | -48.91603 | 91.99418 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 95 | 96 | 97 | 9 | | | |
| | 97 | -48.93577 | 89.22327 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 96 | 97 | 98 | 9 | | | |
| | 98 | -48.95551 | 86.45236 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 97 | 98 | 99 | 9 | | | |
| | 99 | -48.97524 | 83.68145 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 98 | 99 | 0 | 9 | | | |
| | 100 | 18.27813 | 111.39055 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 0 | 100 | 101 | 10 | | | |
| | 101 | 18.25839 | 108.61964 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 100 | 101 | 102 | 10 | | | |
| | 102 | 18.23866 | 105.84873 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 101 | 102 | 103 | 10 | | | |
| | 103 | 18.21892 | 103.07782 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 102 | 103 | 104 | 10 | | | |
| | 104 | 18.19918 | 100.30691 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 103 | 104 | 105 | 10 | | | |
| | 105 | 18.17944 | 97.53600 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 104 | 105 | 106 | 10 | | | |
| | 106 | 18.15971 | 94.76509 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 105 | 106 | 107 | 10 | | | |
| | 107 | 18.13997 | 91.99418 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 106 | 107 | 108 | 10 | | | |
| | 108 | 18.12023 | 89.22327 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 107 | 108 | 109 | 10 | | | |
| | 109 | 18.10049 | 86.45236 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 108 | 109 | 110 | 10 | | | |
| | 110 | 18.08076 | 83.68145 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 109 | 110 | 0 | 10 | | | |
| | 111 | 82.28613 | 111.39055 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 0 | 111 | 112 | 11 | | | |
| | 112 | 82.26639 | 108.61964 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 111 | 112 | 113 | 11 | | | |
| | 113 | 82.24666 | 105.84873 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 112 | 113 | 114 | 11 | | | |
| | 114 | 82.22692 | 103.07782 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |

| | | | | | | | |
|---------|-----|-----------|-----------|----------|---------|---------|-----------|
| 0.00100 | 113 | 114 | 115 | 11 | | | |
| | 115 | 82.20718 | 100.30691 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 114 | 115 | 116 | 11 | | | |
| | 116 | 82.18744 | 97.53600 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 115 | 116 | 117 | 11 | | | |
| | 117 | 82.16771 | 94.76509 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 116 | 117 | 118 | 11 | | | |
| | 118 | 82.14797 | 91.99418 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 117 | 118 | 119 | 11 | | | |
| | 119 | 82.12823 | 89.22327 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 118 | 119 | 120 | 11 | | | |
| | 120 | 82.10849 | 86.45236 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 119 | 120 | 121 | 11 | | | |
| | 121 | 82.08876 | 83.68145 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 120 | 121 | 0 | 11 | | | |
| | 122 | -48.77787 | 59.57455 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 0 | 122 | 123 | 12 | | | |
| | 123 | -48.79761 | 56.80364 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 122 | 123 | 124 | 12 | | | |
| | 124 | -48.81734 | 54.03273 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 123 | 124 | 125 | 12 | | | |
| | 125 | -48.83708 | 51.26182 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 124 | 125 | 126 | 12 | | | |
| | 126 | -48.85682 | 48.49091 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 125 | 126 | 127 | 12 | | | |
| | 127 | -48.87656 | 45.72000 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 126 | 127 | 128 | 12 | | | |
| | 128 | -48.89629 | 42.94909 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 127 | 128 | 129 | 12 | | | |
| | 129 | -48.91603 | 40.17818 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 128 | 129 | 130 | 12 | | | |
| | 130 | -48.93577 | 37.40727 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 129 | 130 | 131 | 12 | | | |
| | 131 | -48.95551 | 34.63636 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 130 | 131 | 132 | 12 | | | |
| | 132 | -48.97524 | 31.86545 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 131 | 132 | 0 | 12 | | | |
| | 133 | 82.28613 | 62.62255 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 0 | 133 | 134 | 13 | | | |
| | 134 | 82.26639 | 59.85164 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 133 | 134 | 135 | 13 | | | |
| | 135 | 82.24666 | 57.08073 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 134 | 135 | 136 | 13 | | | |
| | 136 | 82.22692 | 54.30982 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 135 | 136 | 137 | 13 | | | |
| | 137 | 82.20718 | 51.53891 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 136 | 137 | 138 | 13 | | | |
| | 138 | 82.18744 | 48.76800 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 137 | 138 | 139 | 13 | | | |
| | 139 | 82.16771 | 45.99709 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 138 | 139 | 140 | 13 | | | |
| | 140 | 82.14797 | 43.22618 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |

| | | | | | | | |
|---------|-----|-----------|-----------|----------|---------|---------|-----------|
| 0.00100 | 139 | 140 | 141 | 13 | | | |
| | 141 | 82.12823 | 40.45527 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 140 | 141 | 142 | 13 | | | |
| | 142 | 82.10849 | 37.68436 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 141 | 142 | 143 | 13 | | | |
| | 143 | 82.08876 | 34.91345 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 142 | 143 | 0 | 13 | | | |
| | 144 | -48.56076 | 13.85455 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 0 | 144 | 145 | 14 | | | |
| | 145 | -48.58049 | 11.08364 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 144 | 145 | 146 | 14 | | | |
| | 146 | -48.60023 | 8.31273 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 145 | 146 | 147 | 14 | | | |
| | 147 | -48.61997 | 5.54182 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 146 | 147 | 148 | 14 | | | |
| | 148 | -48.63971 | 2.77091 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 147 | 148 | 149 | 14 | | | |
| | 149 | -48.65944 | 0.00000 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 148 | 149 | 150 | 14 | | | |
| | 150 | -48.67918 | -2.77091 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 149 | 150 | 151 | 14 | | | |
| | 151 | -48.69892 | -5.54182 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 150 | 151 | 152 | 14 | | | |
| | 152 | -48.71866 | -8.31273 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 151 | 152 | 153 | 14 | | | |
| | 153 | -48.73839 | -11.08364 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 152 | 153 | 154 | 14 | | | |
| | 154 | -48.75813 | -13.85455 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 153 | 154 | 0 | 14 | | | |
| | 155 | 18.49524 | 13.85455 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 0 | 155 | 156 | 15 | | | |
| | 156 | 18.47551 | 11.08364 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 155 | 156 | 157 | 15 | | | |
| | 157 | 18.45577 | 8.31273 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 156 | 157 | 158 | 15 | | | |
| | 158 | 18.43603 | 5.54182 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 157 | 158 | 159 | 15 | | | |
| | 159 | 18.41629 | 2.77091 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 158 | 159 | 160 | 15 | | | |
| | 160 | 18.39656 | 0.00000 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 159 | 160 | 161 | 15 | | | |
| | 161 | 18.37682 | -2.77091 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 160 | 161 | 162 | 15 | | | |
| | 162 | 18.35708 | -5.54182 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 161 | 162 | 163 | 15 | | | |
| | 163 | 18.33734 | -8.31273 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 162 | 163 | 164 | 15 | | | |
| | 164 | 18.31761 | -11.08364 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 163 | 164 | 165 | 15 | | | |
| | 165 | 18.29787 | -13.85455 | 16.96023 | 2.77098 | 0.00000 | -90.40812 |
| 0.00100 | 164 | 165 | 0 | 15 | | | |
| | 166 | 85.33413 | 13.85455 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |

| | | | | | | | |
|---------|-----|----------|-----------|----------|---------|---------|-----------|
| 0.00100 | 0 | 166 | 167 | 17 | | | |
| | 167 | 85.31439 | 11.08364 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 166 | 167 | 168 | 17 | | | |
| | 168 | 85.29466 | 8.31273 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 167 | 168 | 169 | 17 | | | |
| | 169 | 85.27492 | 5.54182 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 168 | 169 | 170 | 17 | | | |
| | 170 | 85.25518 | 2.77091 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 169 | 170 | 171 | 17 | | | |
| | 171 | 85.23544 | 0.00000 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 170 | 171 | 172 | 17 | | | |
| | 172 | 85.21571 | -2.77091 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 171 | 172 | 173 | 17 | | | |
| | 173 | 85.19597 | -5.54182 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 172 | 173 | 174 | 17 | | | |
| | 174 | 85.17623 | -8.31273 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 173 | 174 | 175 | 17 | | | |
| | 175 | 85.15649 | -11.08364 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 174 | 175 | 176 | 17 | | | |
| | 176 | 85.13676 | -13.85455 | 16.96023 | 2.77098 | 0.00000 | -90.40811 |
| 0.00100 | 175 | 176 | 0 | 17 | | | |

| | | | | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| ***** | DATA | CARD NO. | 1 | EX | 0 | 1 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 2 | EX | 0 | 6 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 3 | EX | 0 | 8 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 4 | EX | 0 | 7 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 5 | EX | 0 | 4 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 6 | EX | 0 | 5 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 7 | EX | 0 | 2 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 8 | EX | 0 | 3 | 6 | 0 | 1.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 9 | EX | 0 | 17 | 5 | 0 | 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 10 | EX | 0 | 9 | 6 | 0 | 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 11 | EX | 0 | 10 | 6 | 0 | 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 12 | EX | 0 | 11 | 6 | 0 | 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** | DATA | CARD NO. | 13 | EX | 0 | 14 | 6 | 0 | 6.00000E-17 |

| | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------------|
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** DATA CARD NO. 14 | EX | 0 | 15 | 6 | 0 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** DATA CARD NO. 15 | EX | 0 | 13 | 6 | 0 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** DATA CARD NO. 16 | EX | 0 | 12 | 6 | 0 6.00000E-17 |
| 1.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** DATA CARD NO. 17 | GN | 1 | 0 | 0 | 0 0.00000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** DATA CARD NO. 18 | FR | 0 | 1 | 0 | 0 4.50000E+00 |
| 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |
| ***** DATA CARD NO. 19 | RP | 0 | 19 | 73 | 1003 -9.00000E+01 |
| 0.00000E+00 | 5.00000E+00 | 5.00000E+00 | 0.00000E+00 | 0.00000E+00 | 0.00000E+00 |

- - - - - FREQUENCY - - - - -

FREQUENCY= 4.5000E+00 MHZ
WAVELENGTH= 6.6622E+01 METERS

APPROXIMATE INTEGRATION EMPLOYED FOR SEGMENTS MORE
THAN 1.000 WAVELENGTHS APART

- - - STRUCTURE IMPEDANCE LOADING - - -

THIS STRUCTURE IS NOT LOADED

- - - ANTENNA ENVIRONMENT - - -

PERFECT GROUND

- - - MATRIX TIMING - - -

FILL= 0.063 SEC., FACTOR= 0.000 SEC.

- - - ANTENNA INPUT

PARAMETERS - - -

| | | | |
|-----|------|-----------------|----------------|
| TAG | SEG. | VOLTAGE (VOLTS) | CURRENT (AMPS) |
|-----|------|-----------------|----------------|

| IMPEDANCE (OHMS) | | ADMITTANCE (MHOS) | | POWER | | |
|------------------|--------------|-------------------|--------------|--------------|--------------|------|
| NO. | NO. | REAL | IMAG. | REAL | IMAG. | REAL |
| IMAG. | REAL | | IMAG. | (WATTS) | | |
| 1 | 6 | 1.00000E+00 | 0.00000E+00 | 7.47098E-03 | -5.59137E-03 | |
| 8.57954E+01 | 6.42103E+01 | 7.47098E-03 | -5.59137E-03 | 3.73549E-03 | | |
| 6 | 61 | 1.00000E+00 | 0.00000E+00 | 1.68898E-02 | -2.08847E-03 | |
| 5.83156E+01 | 7.21088E+00 | 1.68898E-02 | -2.08847E-03 | 8.44491E-03 | | |
| 8 | 83 | 1.00000E+00 | 0.00000E+00 | 7.77563E-03 | -5.26256E-03 | |
| 8.82041E+01 | 5.96967E+01 | 7.77563E-03 | -5.26256E-03 | 3.88781E-03 | | |
| 7 | 72 | 1.00000E+00 | 0.00000E+00 | 6.64520E-03 | -7.30977E-03 | |
| 6.80920E+01 | 7.49017E+01 | 6.64520E-03 | -7.30977E-03 | 3.32260E-03 | | |
| 4 | 39 | 1.00000E+00 | 0.00000E+00 | 1.28221E-02 | -6.88474E-03 | |
| 6.05371E+01 | 3.25051E+01 | 1.28221E-02 | -6.88474E-03 | 6.41104E-03 | | |
| 5 | 50 | 1.00000E+00 | 0.00000E+00 | 7.14178E-03 | -8.74738E-03 | |
| 5.60044E+01 | 6.85952E+01 | 7.14178E-03 | -8.74738E-03 | 3.57089E-03 | | |
| 2 | 17 | 1.00000E+00 | 0.00000E+00 | 8.95091E-03 | -5.89485E-03 | |
| 7.79234E+01 | 5.13184E+01 | 8.95091E-03 | -5.89485E-03 | 4.47546E-03 | | |
| 3 | 28 | 1.00000E+00 | 0.00000E+00 | 9.21024E-03 | -6.20023E-03 | |
| 7.47152E+01 | 5.02974E+01 | 9.21024E-03 | -6.20023E-03 | 4.60512E-03 | | |
| 17 | 170 | 6.00000E-17 | 1.00000E+00 | -6.75217E-03 | 6.03291E-03 | |
| 7.35830E+01 | -8.23558E+01 | 6.03291E-03 | 6.75217E-03 | 3.01646E-03 | | |
| 9 | 94 | 6.00000E-17 | 1.00000E+00 | -8.65524E-03 | 6.58960E-03 | |
| 5.56855E+01 | -7.31412E+01 | 6.58960E-03 | 8.65524E-03 | 3.29480E-03 | | |
| 10 | 105 | 6.00000E-17 | 1.00000E+00 | -9.24465E-03 | 6.78417E-03 | |
| 5.15952E+01 | -7.03077E+01 | 6.78417E-03 | 9.24465E-03 | 3.39208E-03 | | |
| 11 | 116 | 6.00000E-17 | 1.00000E+00 | -6.09402E-03 | 3.81261E-03 | |
| 7.37833E+01 | -1.17934E+02 | 3.81261E-03 | 6.09402E-03 | 1.90630E-03 | | |
| 14 | 149 | 6.00000E-17 | 1.00000E+00 | -6.93353E-03 | 6.76481E-03 | |
| 7.20915E+01 | -7.38895E+01 | 6.76481E-03 | 6.93353E-03 | 3.38240E-03 | | |
| 15 | 160 | 6.00000E-17 | 1.00000E+00 | -7.91170E-03 | 8.19450E-03 | |
| 6.31586E+01 | -6.09789E+01 | 8.19450E-03 | 7.91170E-03 | 4.09725E-03 | | |
| 13 | 138 | 6.00000E-17 | 1.00000E+00 | -6.13725E-03 | 7.08835E-03 | |
| 8.06315E+01 | -6.98125E+01 | 7.08835E-03 | 6.13725E-03 | 3.54417E-03 | | |
| 12 | 127 | 6.00000E-17 | 1.00000E+00 | -5.21506E-03 | 5.75319E-03 | |
| 9.54157E+01 | -8.64910E+01 | 5.75319E-03 | 5.21506E-03 | 2.87659E-03 | | |

- - - CURRENTS AND LOCATION - - -

DISTANCES IN WAVELENGTHS

| SEG. | TAG | COORD. OF SEG. CENTER | | | SEG. | - - - CURRENT | |
|--------|------------|-----------------------|--------|--------|---------|---------------|-----------|
| (AMPS) | - - - | | | | | REAL | IMAG. |
| NO. | NO. | X | Y | Z | LENGTH | | |
| MAG. | PHASE | | | | | | |
| 1 | 1 | 0.0260 | 0.0000 | 0.2500 | 0.04545 | 1.1646E-03 | -1.0020E- |
| 03 | 1.5363E-03 | -40.707 | | | | | |
| 2 | 1 | 0.0714 | 0.0000 | 0.2500 | 0.04545 | 3.2385E-03 | -2.7277E- |
| 03 | 4.2342E-03 | -40.107 | | | | | |
| 3 | 1 | 0.1169 | 0.0000 | 0.2500 | 0.04545 | 4.9934E-03 | -4.1086E- |

| | | | | | | | | | |
|----|------------|---------|---------|--------|--------|---------|------------|-----------|--|
| 03 | 6.4664E-03 | -39.448 | | | | | | | |
| | 4 | 1 | 0.1623 | 0.0000 | 0.2500 | 0.04545 | 6.3415E-03 | -5.0783E- | |
| 03 | 8.1243E-03 | -38.688 | | | | | | | |
| | 5 | 1 | 0.2078 | 0.0000 | 0.2500 | 0.04545 | 7.1889E-03 | -5.5638E- | |
| 03 | 9.0904E-03 | -37.738 | | | | | | | |
| | 6 | 1 | 0.2533 | 0.0000 | 0.2500 | 0.04545 | 7.4710E-03 | -5.5914E- | |
| 03 | 9.3316E-03 | -36.812 | | | | | | | |
| | 7 | 1 | 0.2987 | 0.0000 | 0.2500 | 0.04545 | 7.1623E-03 | -5.5499E- | |
| 03 | 9.0609E-03 | -37.771 | | | | | | | |
| | 8 | 1 | 0.3442 | 0.0000 | 0.2500 | 0.04545 | 6.3047E-03 | -5.0587E- | |
| 03 | 8.0833E-03 | -38.742 | | | | | | | |
| | 9 | 1 | 0.3896 | 0.0000 | 0.2500 | 0.04545 | 4.9566E-03 | -4.0890E- | |
| 03 | 6.4255E-03 | -39.521 | | | | | | | |
| | 10 | 1 | 0.4351 | 0.0000 | 0.2500 | 0.04545 | 3.2099E-03 | -2.7125E- | |
| 03 | 4.2026E-03 | -40.199 | | | | | | | |
| | 11 | 1 | 0.4805 | 0.0000 | 0.2500 | 0.04545 | 1.1526E-03 | -9.9566E- | |
| 04 | 1.5231E-03 | -40.820 | | | | | | | |
| | 12 | 2 | -0.9773 | 0.0000 | 0.2500 | 0.04545 | 1.4018E-03 | -1.0513E- | |
| 03 | 1.7523E-03 | -36.869 | | | | | | | |
| | 13 | 2 | -0.9318 | 0.0000 | 0.2500 | 0.04545 | 3.8922E-03 | -2.8646E- | |
| 03 | 4.8327E-03 | -36.352 | | | | | | | |
| | 14 | 2 | -0.8864 | 0.0000 | 0.2500 | 0.04545 | 5.9938E-03 | -4.3182E- | |
| 03 | 7.3873E-03 | -35.770 | | | | | | | |
| | 15 | 2 | -0.8409 | 0.0000 | 0.2500 | 0.04545 | 7.6050E-03 | -5.3421E- | |
| 03 | 9.2938E-03 | -35.086 | | | | | | | |
| | 16 | 2 | -0.7954 | 0.0000 | 0.2500 | 0.04545 | 8.6155E-03 | -5.8598E- | |
| 03 | 1.0419E-02 | -34.221 | | | | | | | |
| | 17 | 2 | -0.7500 | 0.0000 | 0.2500 | 0.04545 | 8.9509E-03 | -5.8948E- | |
| 03 | 1.0718E-02 | -33.368 | | | | | | | |
| | 18 | 2 | -0.7045 | 0.0000 | 0.2500 | 0.04545 | 8.5819E-03 | -5.8345E- | |
| 03 | 1.0377E-02 | -34.210 | | | | | | | |
| | 19 | 2 | -0.6591 | 0.0000 | 0.2500 | 0.04545 | 7.5534E-03 | -5.3039E- | |
| 03 | 9.2296E-03 | -35.076 | | | | | | | |
| | 20 | 2 | -0.6136 | 0.0000 | 0.2500 | 0.04545 | 5.9377E-03 | -4.2779E- | |
| 03 | 7.3182E-03 | -35.771 | | | | | | | |
| | 21 | 2 | -0.5682 | 0.0000 | 0.2500 | 0.04545 | 3.8457E-03 | -2.8325E- | |
| 03 | 4.7762E-03 | -36.373 | | | | | | | |
| | 22 | 2 | -0.5227 | 0.0000 | 0.2500 | 0.04545 | 1.3814E-03 | -1.0379E- | |
| 03 | 1.7279E-03 | -36.919 | | | | | | | |
| | 23 | 3 | 1.0227 | 0.0000 | 0.2500 | 0.04545 | 1.4363E-03 | -1.0987E- | |
| 03 | 1.8084E-03 | -37.413 | | | | | | | |
| | 24 | 3 | 1.0682 | 0.0000 | 0.2500 | 0.04545 | 3.9959E-03 | -2.9959E- | |
| 03 | 4.9943E-03 | -36.860 | | | | | | | |
| | 25 | 3 | 1.1136 | 0.0000 | 0.2500 | 0.04545 | 6.1637E-03 | -4.5209E- | |
| 03 | 7.6439E-03 | -36.259 | | | | | | | |
| | 26 | 3 | 1.1591 | 0.0000 | 0.2500 | 0.04545 | 7.8300E-03 | -5.6003E- | |
| 03 | 9.6266E-03 | -35.574 | | | | | | | |
| | 27 | 3 | 1.2045 | 0.0000 | 0.2500 | 0.04545 | 8.8752E-03 | -6.1533E- | |
| 03 | 1.0800E-02 | -34.734 | | | | | | | |
| | 28 | 3 | 1.2500 | 0.0000 | 0.2500 | 0.04545 | 9.2102E-03 | -6.2002E- | |
| 03 | 1.1103E-02 | -33.948 | | | | | | | |
| | 29 | 3 | 1.2954 | 0.0000 | 0.2500 | 0.04545 | 8.7930E-03 | -6.1285E- | |

| | | | | | | | | |
|----|------------|---------|---------|--------|--------|---------|------------|-----------|
| 03 | 1.0718E-02 | -34.876 | | | | | | |
| | 30 | 3 | 1.3409 | 0.0000 | 0.2500 | 0.04545 | 7.7572E-03 | -5.5686E- |
| 03 | 9.5490E-03 | -35.673 | | | | | | |
| | 31 | 3 | 1.3864 | 0.0000 | 0.2500 | 0.04545 | 6.1235E-03 | -4.4911E- |
| 03 | 7.5938E-03 | -36.257 | | | | | | |
| | 32 | 3 | 1.4318 | 0.0000 | 0.2500 | 0.04545 | 3.9837E-03 | -2.9735E- |
| 03 | 4.9711E-03 | -36.738 | | | | | | |
| | 33 | 3 | 1.4773 | 0.0000 | 0.2500 | 0.04545 | 1.4376E-03 | -1.0894E- |
| 03 | 1.8038E-03 | -37.156 | | | | | | |
| | 34 | 4 | -0.9773 | 0.7500 | 0.2500 | 0.04545 | 1.9951E-03 | -1.1972E- |
| 03 | 2.3268E-03 | -30.967 | | | | | | |
| | 35 | 4 | -0.9318 | 0.7500 | 0.2500 | 0.04545 | 5.5371E-03 | -3.2668E- |
| 03 | 6.4290E-03 | -30.540 | | | | | | |
| | 36 | 4 | -0.8864 | 0.7500 | 0.2500 | 0.04545 | 8.5251E-03 | -4.9339E- |
| 03 | 9.8498E-03 | -30.060 | | | | | | |
| | 37 | 4 | -0.8409 | 0.7500 | 0.2500 | 0.04545 | 1.0819E-02 | -6.1215E- |
| 03 | 1.2430E-02 | -29.503 | | | | | | |
| | 38 | 4 | -0.7954 | 0.7500 | 0.2500 | 0.04545 | 1.2271E-02 | -6.7521E- |
| 03 | 1.4006E-02 | -28.821 | | | | | | |
| | 39 | 4 | -0.7500 | 0.7500 | 0.2500 | 0.04545 | 1.2822E-02 | -6.8847E- |
| 03 | 1.4554E-02 | -28.233 | | | | | | |
| | 40 | 4 | -0.7045 | 0.7500 | 0.2500 | 0.04545 | 1.2526E-02 | -6.9954E- |
| 03 | 1.4347E-02 | -29.181 | | | | | | |
| | 41 | 4 | -0.6591 | 0.7500 | 0.2500 | 0.04545 | 1.1152E-02 | -6.4353E- |
| 03 | 1.2875E-02 | -29.987 | | | | | | |
| | 42 | 4 | -0.6136 | 0.7500 | 0.2500 | 0.04545 | 8.8319E-03 | -5.2168E- |
| 03 | 1.0258E-02 | -30.569 | | | | | | |
| | 43 | 4 | -0.5682 | 0.7500 | 0.2500 | 0.04545 | 5.7552E-03 | -3.4626E- |
| 03 | 6.7166E-03 | -31.033 | | | | | | |
| | 44 | 4 | -0.5227 | 0.7500 | 0.2500 | 0.04545 | 2.0788E-03 | -1.2699E- |
| 03 | 2.4360E-03 | -31.421 | | | | | | |
| | 45 | 5 | 1.0227 | 0.7500 | 0.2500 | 0.04545 | 1.0803E-03 | -1.4485E- |
| 03 | 1.8070E-03 | -53.284 | | | | | | |
| | 46 | 5 | 1.0682 | 0.7500 | 0.2500 | 0.04545 | 3.0073E-03 | -3.9849E- |
| 03 | 4.9924E-03 | -52.959 | | | | | | |
| | 47 | 5 | 1.1136 | 0.7500 | 0.2500 | 0.04545 | 4.6475E-03 | -6.0727E- |
| 03 | 7.6470E-03 | -52.573 | | | | | | |
| | 48 | 5 | 1.1591 | 0.7500 | 0.2500 | 0.04545 | 5.9261E-03 | -7.6116E- |
| 03 | 9.6465E-03 | -52.097 | | | | | | |
| | 49 | 5 | 1.2045 | 0.7500 | 0.2500 | 0.04545 | 6.7715E-03 | -8.5000E- |
| 03 | 1.0868E-02 | -51.457 | | | | | | |
| | 50 | 5 | 1.2500 | 0.7500 | 0.2500 | 0.04545 | 7.1418E-03 | -8.7474E- |
| 03 | 1.1293E-02 | -50.770 | | | | | | |
| | 51 | 5 | 1.2954 | 0.7500 | 0.2500 | 0.04545 | 6.8708E-03 | -8.6193E- |
| 03 | 1.1023E-02 | -51.440 | | | | | | |
| | 52 | 5 | 1.3409 | 0.7500 | 0.2500 | 0.04545 | 6.0448E-03 | -7.7742E- |
| 03 | 9.8478E-03 | -52.133 | | | | | | |
| | 53 | 5 | 1.3864 | 0.7500 | 0.2500 | 0.04545 | 4.7477E-03 | -6.2292E- |
| 03 | 7.8322E-03 | -52.686 | | | | | | |
| | 54 | 5 | 1.4318 | 0.7500 | 0.2500 | 0.04545 | 3.0726E-03 | -4.1009E- |
| 03 | 5.1243E-03 | -53.158 | | | | | | |
| | 55 | 5 | 1.4773 | 0.7500 | 0.2500 | 0.04545 | 1.1031E-03 | -1.4948E- |

| | | | | | | | |
|----|------------|---------|---------|--------|--------|---------|----------------------|
| 03 | 1.8578E-03 | -53.575 | | | | | |
| | 56 | 6 | -0.9677 | 1.4904 | 0.2500 | 0.04455 | 2.6852E-03 -4.6258E- |
| 04 | 2.7247E-03 | -9.774 | | | | | |
| | 57 | 6 | -0.9232 | 1.4914 | 0.2500 | 0.04455 | 7.4172E-03 -1.2204E- |
| 03 | 7.5169E-03 | -9.344 | | | | | |
| | 58 | 6 | -0.8786 | 1.4923 | 0.2500 | 0.04455 | 1.1373E-02 -1.7730E- |
| 03 | 1.1510E-02 | -8.861 | | | | | |
| | 59 | 6 | -0.8341 | 1.4932 | 0.2500 | 0.04455 | 1.4377E-02 -2.0983E- |
| 03 | 1.4530E-02 | -8.303 | | | | | |
| | 60 | 6 | -0.7895 | 1.4941 | 0.2500 | 0.04455 | 1.6244E-02 -2.1745E- |
| 03 | 1.6389E-02 | -7.625 | | | | | |
| | 61 | 6 | -0.7450 | 1.4950 | 0.2500 | 0.04455 | 1.6890E-02 -2.0885E- |
| 03 | 1.7018E-02 | -7.049 | | | | | |
| | 62 | 6 | -0.7004 | 1.4959 | 0.2500 | 0.04455 | 1.6404E-02 -2.3174E- |
| 03 | 1.6567E-02 | -8.041 | | | | | |
| | 63 | 6 | -0.6559 | 1.4968 | 0.2500 | 0.04455 | 1.4574E-02 -2.2876E- |
| 03 | 1.4752E-02 | -8.921 | | | | | |
| | 64 | 6 | -0.6114 | 1.4977 | 0.2500 | 0.04455 | 1.1539E-02 -1.9485E- |
| 03 | 1.1703E-02 | -9.584 | | | | | |
| | 65 | 6 | -0.5668 | 1.4986 | 0.2500 | 0.04455 | 7.5248E-03 -1.3455E- |
| 03 | 7.6441E-03 | -10.138 | | | | | |
| | 66 | 6 | -0.5223 | 1.4995 | 0.2500 | 0.04455 | 2.7219E-03 -5.1066E- |
| 04 | 2.7694E-03 | -10.626 | | | | | |
| | 67 | 7 | 1.0227 | 1.5000 | 0.2500 | 0.04545 | 9.5799E-04 -1.2287E- |
| 03 | 1.5580E-03 | -52.056 | | | | | |
| | 68 | 7 | 1.0682 | 1.5000 | 0.2500 | 0.04545 | 2.6851E-03 -3.3688E- |
| 03 | 4.3080E-03 | -51.443 | | | | | |
| | 69 | 7 | 1.1136 | 1.5000 | 0.2500 | 0.04545 | 4.1790E-03 -5.1174E- |
| 03 | 6.6069E-03 | -50.764 | | | | | |
| | 70 | 7 | 1.1591 | 1.5000 | 0.2500 | 0.04545 | 5.3711E-03 -6.3939E- |
| 03 | 8.3505E-03 | -49.968 | | | | | |
| | 71 | 7 | 1.2045 | 1.5000 | 0.2500 | 0.04545 | 6.2038E-03 -7.1171E- |
| 03 | 9.4415E-03 | -48.922 | | | | | |
| | 72 | 7 | 1.2500 | 1.5000 | 0.2500 | 0.04545 | 6.6452E-03 -7.3098E- |
| 03 | 9.8788E-03 | -47.726 | | | | | |
| | 73 | 7 | 1.2954 | 1.5000 | 0.2500 | 0.04545 | 6.4259E-03 -7.2368E- |
| 03 | 9.6780E-03 | -48.397 | | | | | |
| | 74 | 7 | 1.3409 | 1.5000 | 0.2500 | 0.04545 | 5.6638E-03 -6.5543E- |
| 03 | 8.6624E-03 | -49.169 | | | | | |
| | 75 | 7 | 1.3864 | 1.5000 | 0.2500 | 0.04545 | 4.4532E-03 -5.2684E- |
| 03 | 6.8983E-03 | -49.793 | | | | | |
| | 76 | 7 | 1.4318 | 1.5000 | 0.2500 | 0.04545 | 2.8843E-03 -3.4777E- |
| 03 | 4.5181E-03 | -50.329 | | | | | |
| | 77 | 7 | 1.4773 | 1.5000 | 0.2500 | 0.04545 | 1.0361E-03 -1.2707E- |
| 03 | 1.6396E-03 | -50.806 | | | | | |
| | 78 | 8 | 0.0227 | 1.5000 | 0.2500 | 0.04545 | 1.1736E-03 -9.3321E- |
| 04 | 1.4994E-03 | -38.491 | | | | | |
| | 79 | 8 | 0.0682 | 1.5000 | 0.2500 | 0.04545 | 3.2735E-03 -2.5375E- |
| 03 | 4.1418E-03 | -37.782 | | | | | |
| | 80 | 8 | 0.1136 | 1.5000 | 0.2500 | 0.04545 | 5.0655E-03 -3.8198E- |
| 03 | 6.3443E-03 | -37.019 | | | | | |
| | 81 | 8 | 0.1591 | 1.5000 | 0.2500 | 0.04545 | 6.4629E-03 -4.7228E- |

| | | | | | | | | | |
|----|------------|---------|---------|--------|--------|---------|-------------|-----------|--|
| 03 | 8.0046E-03 | -36.158 | | | | | | | |
| | 82 | 8 | 0.2045 | 1.5000 | 0.2500 | 0.04545 | 7.3767E-03 | -5.1863E- | |
| 03 | 9.0173E-03 | -35.110 | | | | | | | |
| | 83 | 8 | 0.2500 | 1.5000 | 0.2500 | 0.04545 | 7.7756E-03 | -5.2626E- | |
| 03 | 9.3891E-03 | -34.090 | | | | | | | |
| | 84 | 8 | 0.2955 | 1.5000 | 0.2500 | 0.04545 | 7.6937E-03 | -5.3765E- | |
| 03 | 9.3861E-03 | -34.946 | | | | | | | |
| | 85 | 8 | 0.3409 | 1.5000 | 0.2500 | 0.04545 | 6.8752E-03 | -4.9669E- | |
| 03 | 8.4817E-03 | -35.845 | | | | | | | |
| | 86 | 8 | 0.3864 | 1.5000 | 0.2500 | 0.04545 | 5.4483E-03 | -4.0406E- | |
| 03 | 6.7831E-03 | -36.561 | | | | | | | |
| | 87 | 8 | 0.4318 | 1.5000 | 0.2500 | 0.04545 | 3.5492E-03 | -2.6914E- | |
| 03 | 4.4542E-03 | -37.173 | | | | | | | |
| | 88 | 8 | 0.4773 | 1.5000 | 0.2500 | 0.04545 | 1.2808E-03 | -9.9074E- | |
| 04 | 1.6193E-03 | -37.723 | | | | | | | |
| | 89 | 9 | -0.7322 | 1.6720 | 0.2546 | 0.04159 | -1.3066E-03 | 1.0624E- | |
| 03 | 1.6840E-03 | 140.886 | | | | | | | |
| | 90 | 9 | -0.7325 | 1.6304 | 0.2546 | 0.04159 | -3.6255E-03 | 2.9088E- | |
| 03 | 4.6482E-03 | 141.259 | | | | | | | |
| | 91 | 9 | -0.7327 | 1.5888 | 0.2546 | 0.04159 | -5.6062E-03 | 4.4319E- | |
| 03 | 7.1464E-03 | 141.672 | | | | | | | |
| | 92 | 9 | -0.7330 | 1.5472 | 0.2546 | 0.04159 | -7.1770E-03 | 5.5799E- | |
| 03 | 9.0909E-03 | 142.136 | | | | | | | |
| | 93 | 9 | -0.7333 | 1.5056 | 0.2546 | 0.04159 | -8.2436E-03 | 6.2994E- | |
| 03 | 1.0375E-02 | 142.614 | | | | | | | |
| | 94 | 9 | -0.7336 | 1.4640 | 0.2546 | 0.04159 | -8.6552E-03 | 6.5896E- | |
| 03 | 1.0878E-02 | 142.716 | | | | | | | |
| | 95 | 9 | -0.7339 | 1.4224 | 0.2546 | 0.04159 | -8.1039E-03 | 6.3725E- | |
| 03 | 1.0309E-02 | 141.821 | | | | | | | |
| | 96 | 9 | -0.7342 | 1.3808 | 0.2546 | 0.04159 | -6.9865E-03 | 5.6623E- | |
| 03 | 8.9929E-03 | 140.977 | | | | | | | |
| | 97 | 9 | -0.7345 | 1.3392 | 0.2546 | 0.04159 | -5.4204E-03 | 4.5039E- | |
| 03 | 7.0474E-03 | 140.276 | | | | | | | |
| | 98 | 9 | -0.7348 | 1.2977 | 0.2546 | 0.04159 | -3.4856E-03 | 2.9608E- | |
| 03 | 4.5733E-03 | 139.654 | | | | | | | |
| | 99 | 9 | -0.7351 | 1.2561 | 0.2546 | 0.04159 | -1.2498E-03 | 1.0835E- | |
| 03 | 1.6540E-03 | 139.078 | | | | | | | |
| | 100 | 10 | 0.2744 | 1.6720 | 0.2546 | 0.04159 | -1.3838E-03 | 1.1091E- | |
| 03 | 1.7734E-03 | 141.289 | | | | | | | |
| | 101 | 10 | 0.2741 | 1.6304 | 0.2546 | 0.04159 | -3.8425E-03 | 3.0318E- | |
| 03 | 4.8945E-03 | 141.726 | | | | | | | |
| | 102 | 10 | 0.2738 | 1.5888 | 0.2546 | 0.04159 | -5.9458E-03 | 4.6096E- | |
| 03 | 7.5233E-03 | 142.215 | | | | | | | |
| | 103 | 10 | 0.2735 | 1.5472 | 0.2546 | 0.04159 | -7.6171E-03 | 5.7865E- | |
| 03 | 9.5658E-03 | 142.777 | | | | | | | |
| | 104 | 10 | 0.2732 | 1.5056 | 0.2546 | 0.04159 | -8.7619E-03 | 6.5067E- | |
| 03 | 1.0914E-02 | 143.402 | | | | | | | |
| | 105 | 10 | 0.2729 | 1.4640 | 0.2546 | 0.04159 | -9.2446E-03 | 6.7842E- | |
| 03 | 1.1467E-02 | 143.727 | | | | | | | |
| | 106 | 10 | 0.2726 | 1.4224 | 0.2546 | 0.04159 | -8.7086E-03 | 6.5498E- | |
| 03 | 1.0897E-02 | 143.053 | | | | | | | |
| | 107 | 10 | 0.2723 | 1.3808 | 0.2546 | 0.04159 | -7.5491E-03 | 5.8131E- | |

| | | | | | | | | |
|----|------------|---------|---------|--------|--------|---------|-------------|----------|
| 03 | 9.5279E-03 | 142.402 | | | | | | |
| | 108 | 10 | 0.2720 | 1.3392 | 0.2546 | 0.04159 | -5.8867E-03 | 4.6185E- |
| 03 | 7.4822E-03 | 141.883 | | | | | | |
| | 109 | 10 | 0.2717 | 1.2977 | 0.2546 | 0.04159 | -3.8042E-03 | 3.0320E- |
| 03 | 4.8647E-03 | 141.445 | | | | | | |
| | 110 | 10 | 0.2714 | 1.2561 | 0.2546 | 0.04159 | -1.3709E-03 | 1.1077E- |
| 03 | 1.7624E-03 | 141.062 | | | | | | |
| | 111 | 11 | 1.2351 | 1.6720 | 0.2546 | 0.04159 | -8.6423E-04 | 5.9618E- |
| 04 | 1.0499E-03 | 145.400 | | | | | | |
| | 112 | 11 | 1.2348 | 1.6304 | 0.2546 | 0.04159 | -2.4024E-03 | 1.6368E- |
| 03 | 2.9070E-03 | 145.733 | | | | | | |
| | 113 | 11 | 1.2345 | 1.5888 | 0.2546 | 0.04159 | -3.7255E-03 | 2.5026E- |
| 03 | 4.4881E-03 | 146.108 | | | | | | |
| | 114 | 11 | 1.2342 | 1.5472 | 0.2546 | 0.04159 | -4.7930E-03 | 3.1666E- |
| 03 | 5.7446E-03 | 146.548 | | | | | | |
| | 115 | 11 | 1.2339 | 1.5056 | 0.2546 | 0.04159 | -5.5829E-03 | 3.6034E- |
| 03 | 6.6448E-03 | 147.160 | | | | | | |
| | 116 | 11 | 1.2336 | 1.4640 | 0.2546 | 0.04159 | -6.0940E-03 | 3.8126E- |
| 03 | 7.1884E-03 | 147.969 | | | | | | |
| | 117 | 11 | 1.2333 | 1.4224 | 0.2546 | 0.04159 | -5.7737E-03 | 3.7174E- |
| 03 | 6.8669E-03 | 147.224 | | | | | | |
| | 118 | 11 | 1.2330 | 1.3808 | 0.2546 | 0.04159 | -5.0029E-03 | 3.3228E- |
| 03 | 6.0058E-03 | 146.409 | | | | | | |
| | 119 | 11 | 1.2327 | 1.3392 | 0.2546 | 0.04159 | -3.8962E-03 | 2.6560E- |
| 03 | 4.7154E-03 | 145.718 | | | | | | |
| | 120 | 11 | 1.2324 | 1.2977 | 0.2546 | 0.04159 | -2.5133E-03 | 1.7541E- |
| 03 | 3.0649E-03 | 145.088 | | | | | | |
| | 121 | 11 | 1.2322 | 1.2561 | 0.2546 | 0.04159 | -9.0373E-04 | 6.4485E- |
| 04 | 1.1102E-03 | 144.490 | | | | | | |
| | 122 | 12 | -0.7322 | 0.8942 | 0.2546 | 0.04159 | -7.4626E-04 | 9.3478E- |
| 04 | 1.1961E-03 | 128.601 | | | | | | |
| | 123 | 12 | -0.7325 | 0.8526 | 0.2546 | 0.04159 | -2.0890E-03 | 2.5552E- |
| 03 | 3.3004E-03 | 129.267 | | | | | | |
| | 124 | 12 | -0.7327 | 0.8110 | 0.2546 | 0.04159 | -3.2588E-03 | 3.8886E- |
| 03 | 5.0735E-03 | 129.964 | | | | | | |
| | 125 | 12 | -0.7330 | 0.7694 | 0.2546 | 0.04159 | -4.2052E-03 | 4.8956E- |
| 03 | 6.4538E-03 | 130.662 | | | | | | |
| | 126 | 12 | -0.7333 | 0.7278 | 0.2546 | 0.04159 | -4.8695E-03 | 5.5380E- |
| 03 | 7.3744E-03 | 131.325 | | | | | | |
| | 127 | 12 | -0.7336 | 0.6863 | 0.2546 | 0.04159 | -5.2151E-03 | 5.7532E- |
| 03 | 7.7651E-03 | 132.191 | | | | | | |
| | 128 | 12 | -0.7339 | 0.6447 | 0.2546 | 0.04159 | -4.8460E-03 | 5.5396E- |
| 03 | 7.3601E-03 | 131.179 | | | | | | |
| | 129 | 12 | -0.7342 | 0.6031 | 0.2546 | 0.04159 | -4.1393E-03 | 4.9115E- |
| 03 | 6.4232E-03 | 130.124 | | | | | | |
| | 130 | 12 | -0.7345 | 0.5615 | 0.2546 | 0.04159 | -3.1899E-03 | 3.9030E- |
| 03 | 5.0407E-03 | 129.259 | | | | | | |
| | 131 | 12 | -0.7348 | 0.5199 | 0.2546 | 0.04159 | -2.0409E-03 | 2.5657E- |
| 03 | 3.2785E-03 | 128.500 | | | | | | |
| | 132 | 12 | -0.7351 | 0.4783 | 0.2546 | 0.04159 | -7.2912E-04 | 9.3969E- |
| 04 | 1.1894E-03 | 127.809 | | | | | | |
| | 133 | 13 | 1.2351 | 0.9400 | 0.2546 | 0.04159 | -8.5820E-04 | 1.1257E- |

| | | | | | | | | | |
|----|------------|---------|---------|---------|--------|---------|-------------|----------|--|
| 03 | 1.4155E-03 | 127.321 | | | | | | | |
| | 134 | 13 | 1.2348 | 0.8984 | 0.2546 | 0.04159 | -2.3990E-03 | 3.0868E- | |
| 03 | 3.9094E-03 | 127.854 | | | | | | | |
| | 135 | 13 | 1.2345 | 0.8568 | 0.2546 | 0.04159 | -3.7441E-03 | 4.7152E- | |
| 03 | 6.0209E-03 | 128.451 | | | | | | | |
| | 136 | 13 | 1.2342 | 0.8152 | 0.2546 | 0.04159 | -4.8518E-03 | 5.9607E- | |
| 03 | 7.6857E-03 | 129.145 | | | | | | | |
| | 137 | 13 | 1.2339 | 0.7736 | 0.2546 | 0.04159 | -5.6792E-03 | 6.7642E- | |
| 03 | 8.8322E-03 | 130.017 | | | | | | | |
| | 138 | 13 | 1.2336 | 0.7320 | 0.2546 | 0.04159 | -6.1372E-03 | 7.0883E- | |
| 03 | 9.3761E-03 | 130.887 | | | | | | | |
| | 139 | 13 | 1.2333 | 0.6904 | 0.2546 | 0.04159 | -5.7500E-03 | 6.8497E- | |
| 03 | 8.9432E-03 | 130.012 | | | | | | | |
| | 140 | 13 | 1.2330 | 0.6488 | 0.2546 | 0.04159 | -4.9345E-03 | 6.0773E- | |
| 03 | 7.8283E-03 | 129.075 | | | | | | | |
| | 141 | 13 | 1.2327 | 0.6072 | 0.2546 | 0.04159 | -3.8110E-03 | 4.8262E- | |
| 03 | 6.1495E-03 | 128.296 | | | | | | | |
| | 142 | 13 | 1.2324 | 0.5656 | 0.2546 | 0.04159 | -2.4399E-03 | 3.1678E- | |
| 03 | 3.9986E-03 | 127.604 | | | | | | | |
| | 143 | 13 | 1.2322 | 0.5241 | 0.2546 | 0.04159 | -8.7132E-04 | 1.1576E- | |
| 03 | 1.4489E-03 | 126.968 | | | | | | | |
| | 144 | 14 | -0.7289 | 0.2080 | 0.2546 | 0.04159 | -1.0173E-03 | 1.1155E- | |
| 03 | 1.5097E-03 | 132.363 | | | | | | | |
| | 145 | 14 | -0.7292 | 0.1664 | 0.2546 | 0.04159 | -2.8341E-03 | 3.0468E- | |
| 03 | 4.1611E-03 | 132.929 | | | | | | | |
| | 146 | 14 | -0.7295 | 0.1248 | 0.2546 | 0.04159 | -4.4022E-03 | 4.6327E- | |
| 03 | 6.3907E-03 | 133.538 | | | | | | | |
| | 147 | 14 | -0.7298 | 0.0832 | 0.2546 | 0.04159 | -5.6644E-03 | 5.8215E- | |
| 03 | 8.1225E-03 | 134.216 | | | | | | | |
| | 148 | 14 | -0.7301 | 0.0416 | 0.2546 | 0.04159 | -6.5489E-03 | 6.5469E- | |
| 03 | 9.2601E-03 | 135.009 | | | | | | | |
| | 149 | 14 | -0.7304 | 0.0000 | 0.2546 | 0.04159 | -6.9335E-03 | 6.7648E- | |
| 03 | 9.6869E-03 | 135.706 | | | | | | | |
| | 150 | 14 | -0.7307 | -0.0416 | 0.2546 | 0.04159 | -6.4587E-03 | 6.4758E- | |
| 03 | 9.1461E-03 | 134.924 | | | | | | | |
| | 151 | 14 | -0.7310 | -0.0832 | 0.2546 | 0.04159 | -5.5457E-03 | 5.7113E- | |
| 03 | 7.9607E-03 | 134.157 | | | | | | | |
| | 152 | 14 | -0.7313 | -0.1248 | 0.2546 | 0.04159 | -4.2936E-03 | 4.5150E- | |
| 03 | 6.2305E-03 | 133.560 | | | | | | | |
| | 153 | 14 | -0.7316 | -0.1664 | 0.2546 | 0.04159 | -2.7579E-03 | 2.9514E- | |
| 03 | 4.0395E-03 | 133.059 | | | | | | | |
| | 154 | 14 | -0.7319 | -0.2080 | 0.2546 | 0.04159 | -9.8845E-04 | 1.0742E- | |
| 03 | 1.4598E-03 | 132.620 | | | | | | | |
| | 155 | 15 | 0.2776 | 0.2080 | 0.2546 | 0.04159 | -1.1822E-03 | 1.3337E- | |
| 03 | 1.7822E-03 | 131.554 | | | | | | | |
| | 156 | 15 | 0.2773 | 0.1664 | 0.2546 | 0.04159 | -3.2822E-03 | 3.6547E- | |
| 03 | 4.9122E-03 | 131.926 | | | | | | | |
| | 157 | 15 | 0.2770 | 0.1248 | 0.2546 | 0.04159 | -5.0797E-03 | 5.5728E- | |
| 03 | 7.5406E-03 | 132.350 | | | | | | | |
| | 158 | 15 | 0.2767 | 0.0832 | 0.2546 | 0.04159 | -6.5113E-03 | 7.0201E- | |
| 03 | 9.5749E-03 | 132.846 | | | | | | | |
| | 159 | 15 | 0.2764 | 0.0416 | 0.2546 | 0.04159 | -7.4974E-03 | 7.9128E- | |

| | | | | | | | | | |
|----|------------|---------|--------|---------|--------|---------|-------------|----------|--|
| 03 | 1.0901E-02 | 133.456 | | | | | | | |
| | 160 | 15 | 0.2761 | 0.0000 | 0.2546 | 0.04159 | -7.9117E-03 | 8.1945E- | |
| 03 | 1.1391E-02 | 133.994 | | | | | | | |
| | 161 | 15 | 0.2758 | -0.0416 | 0.2546 | 0.04159 | -7.3931E-03 | 7.8608E- | |
| 03 | 1.0791E-02 | 133.244 | | | | | | | |
| | 162 | 15 | 0.2755 | -0.0832 | 0.2546 | 0.04159 | -6.3660E-03 | 6.9449E- | |
| 03 | 9.4211E-03 | 132.510 | | | | | | | |
| | 163 | 15 | 0.2752 | -0.1248 | 0.2546 | 0.04159 | -4.9382E-03 | 5.4985E- | |
| 03 | 7.3905E-03 | 131.927 | | | | | | | |
| | 164 | 15 | 0.2749 | -0.1664 | 0.2546 | 0.04159 | -3.1764E-03 | 3.5994E- | |
| 03 | 4.8006E-03 | 131.427 | | | | | | | |
| | 165 | 15 | 0.2747 | -0.2080 | 0.2546 | 0.04159 | -1.1396E-03 | 1.3117E- | |
| 03 | 1.7376E-03 | 130.983 | | | | | | | |
| | 166 | 17 | 1.2809 | 0.2080 | 0.2546 | 0.04159 | -1.0539E-03 | 1.0310E- | |
| 03 | 1.4744E-03 | 135.629 | | | | | | | |
| | 167 | 17 | 1.2806 | 0.1664 | 0.2546 | 0.04159 | -2.9402E-03 | 2.8150E- | |
| 03 | 4.0705E-03 | 136.246 | | | | | | | |
| | 168 | 17 | 1.2803 | 0.1248 | 0.2546 | 0.04159 | -4.5721E-03 | 4.2782E- | |
| 03 | 6.2616E-03 | 136.902 | | | | | | | |
| | 169 | 17 | 1.2800 | 0.0832 | 0.2546 | 0.04159 | -5.8910E-03 | 5.3719E- | |
| 03 | 7.9725E-03 | 137.639 | | | | | | | |
| | 170 | 17 | 1.2797 | 0.0416 | 0.2546 | 0.04159 | -6.7522E-03 | 6.0329E- | |
| 03 | 9.0547E-03 | 138.220 | | | | | | | |
| | 171 | 17 | 1.2794 | 0.0000 | 0.2546 | 0.04159 | -6.7192E-03 | 6.2183E- | |
| 03 | 9.1551E-03 | 137.217 | | | | | | | |
| | 172 | 17 | 1.2791 | -0.0416 | 0.2546 | 0.04159 | -6.2021E-03 | 5.9383E- | |
| 03 | 8.5866E-03 | 136.245 | | | | | | | |
| | 173 | 17 | 1.2788 | -0.0832 | 0.2546 | 0.04159 | -5.3322E-03 | 5.2307E- | |
| 03 | 7.4695E-03 | 135.550 | | | | | | | |
| | 174 | 17 | 1.2785 | -0.1248 | 0.2546 | 0.04159 | -4.1342E-03 | 4.1329E- | |
| 03 | 5.8458E-03 | 135.009 | | | | | | | |
| | 175 | 17 | 1.2782 | -0.1664 | 0.2546 | 0.04159 | -2.6598E-03 | 2.7014E- | |
| 03 | 3.7911E-03 | 134.556 | | | | | | | |
| | 176 | 17 | 1.2779 | -0.2080 | 0.2546 | 0.04159 | -9.5492E-04 | 9.8331E- | |
| 04 | 1.3707E-03 | 134.161 | | | | | | | |

- - - POWER BUDGET - - -

| | | |
|---------|----------------|--------------|
| WATTS | INPUT POWER | = 6.3963E-02 |
| WATTS | RADIATED POWER | = 6.3963E-02 |
| WATTS | STRUCTURE LOSS | = 0.0000E+00 |
| WATTS | NETWORK LOSS | = 0.0000E+00 |
| PERCENT | EFFICIENCY | = 100.00 |

- - - RADIATION

PATTERNS - - -

| - - ANGLES - - | | - POWER GAINS - | | | - - - POLARIZATION - | |
|-----------------------|-------------|---------------------|-----------|-------------|----------------------|-------|
| - - - E (THETA) - - - | | - - - E (PHI) - - - | | | | |
| THETA | PHI | VERT. | HOR. | TOTAL | AXIAL | TILT |
| SENSE | MAGNITUDE | PHASE | MAGNITUDE | PHASE | PHASE | |
| DEGREES | DEGREES | DB | DB | DB | RATIO | DEG. |
| VOLTS/M | DEGREES | VOLTS/M | DEGREES | | | |
| -90.00 | 0.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 |
| 3.60508E-22 | -124.21 | 6.83351E-11 | | 41.89 | | |
| -85.00 | 0.00 | -25.38 | -4.53 | -4.50 | 0.02146 | 84.96 |
| RIGHT | 1.05380E-01 | -124.01 | | 1.16205E+00 | -137.80 | |
| -80.00 | 0.00 | -13.37 | 1.32 | 1.47 | 0.04169 | 79.83 |
| RIGHT | 4.20019E-01 | -123.39 | | 2.28029E+00 | -136.90 | |
| -75.00 | 0.00 | -6.46 | 4.50 | 4.84 | 0.05939 | 74.52 |
| RIGHT | 9.31063E-01 | -122.36 | | 3.28855E+00 | -135.41 | |
| -70.00 | 0.00 | -1.80 | 6.38 | 7.00 | 0.07321 | 69.04 |
| RIGHT | 1.59151E+00 | -120.96 | | 4.08331E+00 | -133.39 | |
| -65.00 | 0.00 | 1.36 | 7.27 | 8.26 | 0.08186 | 63.43 |
| RIGHT | 2.29103E+00 | -119.26 | | 4.52440E+00 | -130.90 | |
| -60.00 | 0.00 | 3.22 | 7.15 | 8.62 | 0.08416 | 57.73 |
| RIGHT | 2.83657E+00 | -117.47 | | 4.45917E+00 | -128.10 | |
| -55.00 | 0.00 | 3.61 | 5.70 | 7.79 | 0.07858 | 51.91 |
| RIGHT | 2.96695E+00 | -116.17 | | 3.77338E+00 | -125.42 | |
| -50.00 | 0.00 | 1.87 | 1.99 | 4.94 | 0.06135 | 45.41 |
| RIGHT | 2.42828E+00 | -117.36 | | 2.46324E+00 | -124.38 | |
| -45.00 | 0.00 | -4.39 | -8.33 | -2.92 | 0.04948 | 32.39 |
| RIGHT | 1.18082E+00 | -135.59 | | 7.50995E-01 | -141.85 | |
| -40.00 | 0.00 | -2.90 | -3.45 | -0.15 | 0.24902 | 42.95 |
| RIGHT | 1.40304E+00 | 119.74 | | 1.31712E+00 | 91.72 | |
| -35.00 | 0.00 | 5.22 | 3.06 | 7.28 | 0.13605 | 37.68 |
| RIGHT | 3.57168E+00 | 103.70 | | 2.78526E+00 | 87.71 | |
| -30.00 | 0.00 | 8.56 | 4.67 | 10.05 | 0.10051 | 32.31 |
| RIGHT | 5.24601E+00 | 103.71 | | 3.35252E+00 | 91.04 | |
| -25.00 | 0.00 | 8.92 | 2.61 | 9.83 | 0.07551 | 25.55 |
| RIGHT | 5.46649E+00 | 105.88 | | 2.64354E+00 | 94.84 | |
| -20.00 | 0.00 | 5.52 | -9.20 | 5.67 | 0.06679 | 9.71 |
| RIGHT | 3.69861E+00 | 105.31 | | 6.79169E-01 | 83.33 | |
| -15.00 | 0.00 | -6.58 | 1.34 | 1.99 | 0.40090 | 88.67 |
| RIGHT | 9.17907E-01 | 27.67 | | 2.28591E+00 | -59.55 | |
| -10.00 | 0.00 | 7.90 | 8.65 | 11.30 | 0.15382 | 47.58 |
| RIGHT | 4.86319E+00 | -38.81 | | 5.29952E+00 | -56.36 | |
| -5.00 | 0.00 | 13.25 | 11.75 | 15.58 | 0.10381 | 39.98 |
| RIGHT | 9.00195E+00 | -38.01 | | 7.57772E+00 | -50.04 | |
| 0.00 | 0.00 | 15.20 | 12.67 | 17.13 | 0.07901 | 36.67 |
| RIGHT | 1.12654E+01 | -33.66 | | 8.42160E+00 | -43.09 | |
| -90.00 | 5.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 |
| 3.75760E-22 | -149.46 | 6.04556E-11 | | 18.49 | | |
| -85.00 | 5.00 | -25.03 | -5.61 | -5.56 | 0.02182 | 84.03 |
| RIGHT | 1.09709E-01 | -149.19 | | 1.02678E+00 | -161.10 | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|-------|------|
| -80.00 | 5.00 | -13.05 | 0.22 | 0.42 | 0.04133 | 77.97 | |
| RIGHT | 4.35770E-01 | -148.40 | 2.00759E+00 | -159.88 | | | |
| -75.00 | 5.00 | -6.19 | 3.34 | 3.80 | 0.05637 | 71.78 | |
| RIGHT | 9.60766E-01 | -147.08 | 2.87792E+00 | -157.86 | | | |
| -70.00 | 5.00 | -1.59 | 5.15 | 5.98 | 0.06516 | 65.50 | |
| RIGHT | 1.63067E+00 | -145.27 | 3.54297E+00 | -155.11 | | | |
| -65.00 | 5.00 | 1.50 | 5.94 | 7.27 | 0.06638 | 59.19 | |
| RIGHT | 2.32693E+00 | -143.08 | 3.88026E+00 | -151.69 | | | |
| -60.00 | 5.00 | 3.26 | 5.67 | 7.64 | 0.05898 | 52.92 | |
| RIGHT | 2.84960E+00 | -140.77 | 3.76260E+00 | -147.78 | | | |
| -55.00 | 5.00 | 3.52 | 4.00 | 6.78 | 0.04075 | 46.59 | |
| RIGHT | 2.93592E+00 | -139.10 | 3.10349E+00 | -143.77 | | | |
| -50.00 | 5.00 | 1.56 | -0.18 | 3.79 | 0.00345 | 39.29 | |
| RIGHT | 2.34430E+00 | -140.79 | 1.91805E+00 | -141.20 | | | |
| -45.00 | 5.00 | -4.78 | -13.20 | -4.20 | 0.00878 | 20.76 | LEFT |
| 1.12962E+00 | -166.32 | 4.28250E-01 | -164.80 | | | | |
| -40.00 | 5.00 | -1.14 | -3.63 | 0.80 | 0.26340 | 35.64 | |
| RIGHT | 1.71758E+00 | 102.00 | 1.28899E+00 | 71.14 | | | |
| -35.00 | 5.00 | 5.98 | 2.03 | 7.45 | 0.13536 | 31.91 | |
| RIGHT | 3.89649E+00 | 89.42 | 2.47443E+00 | 72.34 | | | |
| -30.00 | 5.00 | 8.99 | 3.19 | 10.01 | 0.09032 | 26.81 | |
| RIGHT | 5.51597E+00 | 90.78 | 2.82827E+00 | 78.03 | | | |
| -25.00 | 5.00 | 9.14 | 0.48 | 9.69 | 0.06075 | 20.01 | |
| RIGHT | 5.60717E+00 | 94.32 | 2.06999E+00 | 83.58 | | | |
| -20.00 | 5.00 | 5.42 | -16.18 | 5.45 | 0.05630 | 3.51 | |
| RIGHT | 3.65359E+00 | 94.48 | 3.04148E-01 | 51.72 | | | |
| -15.00 | 5.00 | -5.05 | 1.57 | 2.42 | 0.43725 | 80.54 | |
| RIGHT | 1.09475E+00 | 5.19 | 2.34565E+00 | -68.11 | | | |
| -10.00 | 5.00 | 8.79 | 8.01 | 11.43 | 0.15763 | 42.29 | |
| RIGHT | 5.38696E+00 | -43.89 | 4.92307E+00 | -61.88 | | | |
| -5.00 | 5.00 | 13.86 | 10.82 | 15.61 | 0.10359 | 34.94 | |
| RIGHT | 9.65733E+00 | -40.80 | 6.80381E+00 | -53.37 | | | |
| 0.00 | 5.00 | 15.71 | 11.57 | 17.13 | 0.07901 | 31.67 | |
| RIGHT | 1.19473E+01 | -34.24 | 7.42269E+00 | -44.33 | | | |
| -90.00 | 10.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.40976E-22 | -174.34 | 4.52945E-11 | -3.57 | | | | |
| -85.00 | 10.00 | -25.88 | -8.13 | -8.05 | 0.01994 | 82.71 | |
| RIGHT | 9.94651E-02 | -174.02 | 7.68375E-01 | 176.98 | | | |
| -80.00 | 10.00 | -13.93 | -2.33 | -2.04 | 0.03576 | 75.38 | |
| RIGHT | 3.94032E-01 | -173.05 | 1.49711E+00 | 178.60 | | | |
| -75.00 | 10.00 | -7.10 | 0.74 | 1.40 | 0.04410 | 68.04 | |
| RIGHT | 8.65023E-01 | -171.47 | 2.13307E+00 | -178.73 | | | |
| -70.00 | 10.00 | -2.55 | 2.47 | 3.65 | 0.04289 | 60.77 | |
| RIGHT | 1.45940E+00 | -169.30 | 2.60138E+00 | -175.06 | | | |
| -65.00 | 10.00 | 0.46 | 3.13 | 5.01 | 0.03134 | 53.68 | |
| RIGHT | 2.06526E+00 | -166.71 | 2.80815E+00 | -170.47 | | | |
| -60.00 | 10.00 | 2.11 | 2.66 | 5.40 | 0.00860 | 46.79 | |
| RIGHT | 2.49746E+00 | -164.07 | 2.65899E+00 | -165.06 | | | |
| -55.00 | 10.00 | 2.18 | 0.58 | 4.46 | 0.02972 | 39.76 | LEFT |
| 2.51692E+00 | -162.50 | 2.09438E+00 | -159.04 | | | | |
| -50.00 | 10.00 | -0.17 | -4.73 | 1.13 | 0.10090 | 30.27 | LEFT |
| 1.92086E+00 | -166.40 | 1.13576E+00 | -153.22 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -45.00 | 10.00 | -6.00 | -26.09 | -5.96 | 0.09649 | 1.25 | |
| RIGHT | 9.81528E-01 | 151.07 | 9.70891E-02 | 73.67 | | | |
| -40.00 | 10.00 | 0.63 | -3.72 | 1.99 | 0.26093 | 28.98 | |
| RIGHT | 2.10608E+00 | 81.95 | 1.27600E+00 | 48.50 | | | |
| -35.00 | 10.00 | 6.59 | 0.61 | 7.57 | 0.12968 | 25.92 | |
| RIGHT | 4.18397E+00 | 74.84 | 2.10045E+00 | 56.29 | | | |
| -30.00 | 10.00 | 9.19 | 1.06 | 9.81 | 0.07686 | 21.04 | |
| RIGHT | 5.64369E+00 | 77.97 | 2.21321E+00 | 64.98 | | | |
| -25.00 | 10.00 | 9.06 | -2.80 | 9.34 | 0.04327 | 14.12 | |
| RIGHT | 5.55966E+00 | 82.88 | 1.41901E+00 | 72.50 | | | |
| -20.00 | 10.00 | 4.91 | -16.92 | 4.94 | 0.04865 | -3.71 | |
| RIGHT | 3.44588E+00 | 83.23 | 2.79230E-01 | -59.69 | | | |
| -15.00 | 10.00 | -3.03 | 1.77 | 3.01 | 0.45731 | 70.10 | |
| RIGHT | 1.38095E+00 | -16.04 | 2.39970E+00 | -77.07 | | | |
| -10.00 | 10.00 | 9.62 | 7.24 | 11.61 | 0.15992 | 36.82 | |
| RIGHT | 5.93075E+00 | -48.82 | 4.50840E+00 | -67.71 | | | |
| -5.00 | 10.00 | 14.39 | 9.69 | 15.66 | 0.10312 | 29.87 | |
| RIGHT | 1.02620E+01 | -43.46 | 5.97695E+00 | -57.03 | | | |
| 0.00 | 10.00 | 16.13 | 10.25 | 17.13 | 0.07901 | 26.67 | |
| RIGHT | 1.25392E+01 | -34.76 | 6.37188E+00 | -45.97 | | | |
| -90.00 | 15.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.55495E-22 | 160.39 | 2.68455E-11 | -22.13 | | | | |
| -85.00 | 15.00 | -28.39 | -12.68 | -12.56 | 0.00598 | 80.71 | |
| RIGHT | 7.45256E-02 | 160.76 | 4.55111E-01 | 158.61 | | | |
| -80.00 | 15.00 | -16.44 | -6.90 | -6.44 | 0.00532 | 71.55 | |
| RIGHT | 2.95196E-01 | 161.85 | 8.84772E-01 | 160.84 | | | |
| -75.00 | 15.00 | -9.61 | -3.87 | -2.84 | 0.00617 | 62.70 | LEFT |
| 6.47625E-01 | 163.65 | 1.25469E+00 | 164.52 | | | | |
| -70.00 | 15.00 | -5.09 | -2.22 | -0.41 | 0.02960 | 54.30 | LEFT |
| 1.09027E+00 | 166.06 | 1.51619E+00 | 169.63 | | | | |
| -65.00 | 15.00 | -2.12 | -1.71 | 1.10 | 0.06468 | 46.36 | LEFT |
| 1.53402E+00 | 168.83 | 1.60777E+00 | 176.24 | | | | |
| -60.00 | 15.00 | -0.59 | -2.50 | 1.57 | 0.11381 | 38.57 | LEFT |
| 1.82936E+00 | 171.31 | 1.46772E+00 | -175.38 | | | | |
| -55.00 | 15.00 | -0.81 | -5.33 | 0.51 | 0.18946 | 29.54 | LEFT |
| 1.78445E+00 | 171.50 | 1.06030E+00 | -163.89 | | | | |
| -50.00 | 15.00 | -3.71 | -13.25 | -3.25 | 0.28774 | 9.63 | LEFT |
| 1.27725E+00 | 160.21 | 4.26135E-01 | -137.52 | | | | |
| -45.00 | 15.00 | -5.54 | -12.22 | -4.69 | 0.45799 | -4.02 | |
| RIGHT | 1.03536E+00 | 96.56 | 4.79499E-01 | -0.32 | | | |
| -40.00 | 15.00 | 2.16 | -4.18 | 3.07 | 0.24400 | 22.71 | |
| RIGHT | 2.51236E+00 | 61.68 | 1.21060E+00 | 25.60 | | | |
| -35.00 | 15.00 | 6.98 | -1.49 | 7.56 | 0.11669 | 19.74 | |
| RIGHT | 4.37642E+00 | 60.15 | 1.65032E+00 | 39.74 | | | |
| -30.00 | 15.00 | 9.12 | -2.11 | 9.43 | 0.05845 | 15.02 | |
| RIGHT | 5.59314E+00 | 65.28 | 1.53551E+00 | 52.09 | | | |
| -25.00 | 15.00 | 8.66 | -8.49 | 8.74 | 0.02210 | 7.80 | |
| RIGHT | 5.30812E+00 | 71.50 | 7.36503E-01 | 62.16 | | | |
| -20.00 | 15.00 | 3.93 | -9.14 | 4.14 | 0.04897 | -12.22 | |
| RIGHT | 3.07814E+00 | 71.10 | 6.83614E-01 | -95.56 | | | |
| -15.00 | 15.00 | -0.78 | 1.85 | 3.74 | 0.45625 | 58.30 | |
| RIGHT | 1.78981E+00 | -34.15 | 2.42187E+00 | -86.35 | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -10.00 | 15.00 | 10.40 | 6.30 | 11.83 | 0.16051 | 31.20 | |
| RIGHT | 6.48783E+00 | -53.60 | 4.04568E+00 | -73.99 | | | |
| -5.00 | 15.00 | 14.84 | 8.31 | 15.71 | 0.10236 | 24.76 | |
| RIGHT | 1.08096E+01 | -45.98 | 5.10077E+00 | -61.20 | | | |
| 0.00 | 15.00 | 16.47 | 8.61 | 17.13 | 0.07901 | 21.67 | |
| RIGHT | 1.30367E+01 | -35.23 | 5.27989E+00 | -48.27 | | | |
| -90.00 | 20.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.34146E-22 | 130.91 | 1.04555E-11 | -24.63 | | | | |
| -85.00 | 20.00 | -33.95 | -20.83 | -20.62 | 0.09035 | 78.62 | LEFT |
| 3.92822E-02 | 131.33 | 1.78078E-01 | 156.54 | | | | |
| -80.00 | 20.00 | -21.91 | -14.94 | -14.14 | 0.17782 | 67.56 | LEFT |
| 1.57268E-01 | 132.55 | 3.50747E-01 | 160.05 | | | | |
| -75.00 | 20.00 | -14.95 | -11.74 | -10.05 | 0.26043 | 56.95 | LEFT |
| 3.50162E-01 | 134.51 | 5.06810E-01 | 165.94 | | | | |
| -70.00 | 20.00 | -10.30 | -9.92 | -7.09 | 0.33894 | 46.61 | LEFT |
| 5.98122E-01 | 136.97 | 6.25342E-01 | 174.46 | | | | |
| -65.00 | 20.00 | -7.27 | -9.23 | -5.13 | 0.41973 | 35.76 | LEFT |
| 8.48315E-01 | 139.36 | 6.76829E-01 | -173.59 | | | | |
| -60.00 | 20.00 | -5.81 | -9.77 | -4.34 | 0.51409 | 21.37 | LEFT |
| 1.00352E+00 | 140.14 | 6.35609E-01 | -155.76 | | | | |
| -55.00 | 20.00 | -6.30 | -11.51 | -5.16 | 0.53054 | -8.45 | LEFT |
| 9.47956E-01 | 134.06 | 5.20673E-01 | -124.80 | | | | |
| -50.00 | 20.00 | -8.03 | -11.88 | -6.53 | 0.06596 | -32.58 | |
| RIGHT | 7.77192E-01 | 100.24 | 4.98925E-01 | -71.46 | | | |
| -45.00 | 20.00 | -2.95 | -8.46 | -1.87 | 0.50719 | 9.08 | |
| RIGHT | 1.39501E+00 | 52.33 | 7.39403E-01 | -24.81 | | | |
| -40.00 | 20.00 | 3.23 | -5.54 | 3.77 | 0.21408 | 16.47 | |
| RIGHT | 2.84100E+00 | 42.31 | 1.03495E+00 | 2.78 | | | |
| -35.00 | 20.00 | 7.04 | -4.78 | 7.32 | 0.09411 | 13.41 | |
| RIGHT | 4.40693E+00 | 45.55 | 1.12907E+00 | 22.72 | | | |
| -30.00 | 20.00 | 8.71 | -7.39 | 8.81 | 0.03316 | 8.71 | |
| RIGHT | 5.33615E+00 | 52.73 | 8.36139E-01 | 40.22 | | | |
| -25.00 | 20.00 | 7.88 | -27.75 | 7.88 | 0.00367 | 0.92 | LEFT |
| 4.85263E+00 | 60.07 | 8.02051E-02 | 72.89 | | | | |
| -20.00 | 20.00 | 2.38 | -5.20 | 3.08 | 0.06911 | -22.41 | |
| RIGHT | 2.57452E+00 | 57.06 | 1.07621E+00 | -111.80 | | | |
| -15.00 | 20.00 | 1.43 | 1.72 | 4.59 | 0.43521 | 46.40 | |
| RIGHT | 2.30921E+00 | -48.98 | 2.38725E+00 | -96.05 | | | |
| -10.00 | 20.00 | 11.12 | 5.11 | 12.09 | 0.15933 | 25.46 | |
| RIGHT | 7.04751E+00 | -58.19 | 3.52793E+00 | -81.03 | | | |
| -5.00 | 20.00 | 15.22 | 6.59 | 15.78 | 0.10132 | 19.62 | |
| RIGHT | 1.12934E+01 | -48.37 | 4.18199E+00 | -66.30 | | | |
| 0.00 | 20.00 | 16.73 | 6.55 | 17.13 | 0.07901 | 16.67 | |
| RIGHT | 1.34358E+01 | -35.68 | 4.16079E+00 | -51.81 | | | |
| -90.00 | 25.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.44873E-23 | 29.86 | 6.70344E-12 | 40.57 | | | | |
| -85.00 | 25.00 | -45.73 | -24.61 | -24.57 | 0.01202 | -85.02 | |
| RIGHT | 1.01281E-02 | 32.71 | 1.15206E-01 | -139.37 | | | |
| -80.00 | 25.00 | -33.52 | -18.47 | -18.34 | 0.00169 | -79.97 | |
| RIGHT | 4.12863E-02 | 40.53 | 2.33539E-01 | -138.90 | | | |
| -75.00 | 25.00 | -26.13 | -14.81 | -14.50 | 0.03670 | -74.94 | LEFT |
| 9.66710E-02 | 51.08 | 3.56119E-01 | -137.25 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -70.00 | 25.00 | -20.74 | -12.23 | -11.66 | 0.08288 | -69.87 | LEFT |
| 1.79922E-01 | 61.12 | 4.79074E-01 | -133.37 | | | | |
| -65.00 | 25.00 | -16.72 | -10.40 | -9.49 | 0.09102 | -64.60 | LEFT |
| 2.85665E-01 | 67.19 | 5.91481E-01 | -126.14 | | | | |
| -60.00 | 25.00 | -13.84 | -9.21 | -7.92 | 0.00382 | -59.60 | |
| RIGHT | 3.97978E-01 | 65.02 | 6.78424E-01 | | -114.48 | | |
| -55.00 | 25.00 | -11.03 | -8.56 | -6.61 | 0.27999 | -54.47 | |
| RIGHT | 5.50032E-01 | 49.87 | 7.31312E-01 | | -97.42 | | |
| -50.00 | 25.00 | -6.36 | -8.24 | -4.19 | 0.70900 | -24.85 | |
| RIGHT | 9.42069E-01 | 30.23 | 7.57954E-01 | | -74.74 | | |
| -45.00 | 25.00 | -0.86 | -8.11 | -0.11 | 0.39848 | 9.86 | |
| RIGHT | 1.77457E+00 | 22.15 | 7.69667E-01 | | -48.24 | | |
| -40.00 | 25.00 | 3.66 | -8.49 | 3.92 | 0.17032 | 10.13 | |
| RIGHT | 2.98560E+00 | 24.13 | 7.36630E-01 | | -21.25 | | |
| -35.00 | 25.00 | 6.67 | -10.74 | 6.75 | 0.05910 | 6.90 | |
| RIGHT | 4.22244E+00 | 31.16 | 5.68926E-01 | | 4.74 | | |
| -30.00 | 25.00 | 7.90 | -21.02 | 7.91 | 0.00138 | 2.05 | LEFT |
| 4.86561E+00 | 40.27 | 1.74106E-01 | 42.49 | | | | |
| -25.00 | 25.00 | 6.66 | -11.52 | 6.72 | 0.03428 | -6.75 | LEFT |
| 4.21483E+00 | 48.35 | 5.19597E-01 | -148.03 | | | | |
| -20.00 | 25.00 | 0.15 | -2.99 | 1.87 | 0.13357 | -34.48 | |
| RIGHT | 1.99344E+00 | 38.77 | 1.38875E+00 | | -124.98 | | |
| -15.00 | 25.00 | 3.45 | 1.31 | 5.52 | 0.40109 | 35.25 | |
| RIGHT | 2.91182E+00 | -61.09 | 2.27643E+00 | | -106.49 | | |
| -10.00 | 25.00 | 11.77 | 3.57 | 12.39 | 0.15644 | 19.64 | |
| RIGHT | 7.59542E+00 | -62.57 | 2.95441E+00 | | -89.44 | | |
| -5.00 | 25.00 | 15.53 | 4.36 | 15.85 | 0.09997 | 14.45 | |
| RIGHT | 1.17060E+01 | -50.62 | 3.23430E+00 | | -73.30 | | |
| 0.00 | 25.00 | 16.92 | 3.81 | 17.13 | 0.07901 | 11.67 | |
| RIGHT | 1.37334E+01 | -36.10 | 3.03754E+00 | | -57.96 | | |
| -90.00 | 30.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.13237E-22 | -59.08 | 1.04552E-11 | 43.00 | | | | |
| -85.00 | 30.00 | -35.62 | -20.85 | -20.70 | 0.17873 | 87.91 | |
| RIGHT | 3.24076E-02 | -58.00 | 1.77674E-01 | | -136.85 | | |
| -80.00 | 30.00 | -24.14 | -14.98 | -14.49 | 0.34360 | 86.68 | |
| RIGHT | 1.21551E-01 | -54.73 | 3.48880E-01 | | -136.28 | | |
| -75.00 | 30.00 | -18.02 | -11.73 | -10.81 | 0.48262 | 87.32 | |
| RIGHT | 2.45963E-01 | -49.21 | 5.07394E-01 | | -134.97 | | |
| -70.00 | 30.00 | -14.24 | -9.63 | -8.34 | 0.58785 | -89.20 | |
| RIGHT | 3.79908E-01 | -41.44 | 6.46101E-01 | | -132.33 | | |
| -65.00 | 30.00 | -11.69 | -8.28 | -6.65 | 0.66605 | -82.91 | |
| RIGHT | 5.09506E-01 | -31.80 | 7.54559E-01 | | -127.64 | | |
| -60.00 | 30.00 | -9.55 | -7.59 | -5.45 | 0.76285 | -73.71 | |
| RIGHT | 6.51958E-01 | -21.70 | 8.17654E-01 | | -120.09 | | |
| -55.00 | 30.00 | -7.06 | -7.58 | -4.30 | 0.89147 | -29.33 | |
| RIGHT | 8.68764E-01 | -13.36 | 8.18539E-01 | | -108.98 | | |
| -50.00 | 30.00 | -3.80 | -8.39 | -2.51 | 0.58741 | 3.14 | |
| RIGHT | 1.26400E+00 | -7.32 | 7.45339E-01 | | -93.83 | | |
| -45.00 | 30.00 | -0.09 | -10.36 | 0.30 | 0.29142 | 5.45 | |
| RIGHT | 1.93916E+00 | -1.21 | 5.94397E-01 | | -74.67 | | |
| -40.00 | 30.00 | 3.34 | -14.67 | 3.40 | 0.10801 | 3.68 | |
| RIGHT | 2.87561E+00 | 6.92 | 3.61562E-01 | | -52.68 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -35.00 | 30.00 | 5.78 | -36.06 | 5.78 | 0.00741 | 0.19 | |
| RIGHT | 3.80926E+00 | 17.01 | 3.08081E-02 | -49.35 | | | |
| -30.00 | 30.00 | 6.64 | -13.22 | 6.69 | 0.04803 | -5.12 | LEFT |
| 4.20726E+00 | 27.83 | 4.27496E-01 | 179.37 | | | | |
| -25.00 | 30.00 | 4.90 | -5.90 | 5.24 | 0.06741 | -15.68 | LEFT |
| 3.44157E+00 | 35.91 | 9.93096E-01 | -158.69 | | | | |
| -20.00 | 30.00 | -2.52 | -1.82 | 0.86 | 0.27982 | -47.71 | |
| RIGHT | 1.46528E+00 | 10.86 | 1.58884E+00 | -137.76 | | | |
| -15.00 | 30.00 | 5.20 | 0.53 | 6.47 | 0.36159 | 25.15 | |
| RIGHT | 3.56225E+00 | -71.13 | 2.08112E+00 | -118.37 | | | |
| -10.00 | 30.00 | 12.35 | 1.54 | 12.69 | 0.15199 | 13.77 | |
| RIGHT | 8.11432E+00 | -66.70 | 2.33809E+00 | -100.64 | | | |
| -5.00 | 30.00 | 15.77 | 1.36 | 15.93 | 0.09832 | 9.26 | |
| RIGHT | 1.20398E+01 | -52.74 | 2.29157E+00 | -84.75 | | | |
| 0.00 | 30.00 | 17.04 | 0.04 | 17.13 | 0.07901 | 6.67 | |
| RIGHT | 1.39272E+01 | -36.50 | 1.96628E+00 | -71.06 | | | |
| -90.00 | 35.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.61708E-22 | -85.76 | 9.79539E-12 | 18.87 | | | | |
| -85.00 | 35.00 | -32.51 | -21.42 | -21.10 | 0.26921 | 85.82 | |
| RIGHT | 4.63784E-02 | -84.89 | 1.66282E-01 | -160.82 | | | |
| -80.00 | 35.00 | -20.98 | -15.59 | -14.49 | 0.51556 | 80.95 | |
| RIGHT | 1.74930E-01 | -82.28 | 3.25263E-01 | -159.80 | | | |
| -75.00 | 35.00 | -14.80 | -12.41 | -10.43 | 0.71977 | 73.91 | |
| RIGHT | 3.56208E-01 | -77.93 | 4.69169E-01 | -157.82 | | | |
| -70.00 | 35.00 | -11.03 | -10.44 | -7.72 | 0.86427 | 58.84 | |
| RIGHT | 5.50097E-01 | -71.83 | 5.88454E-01 | -154.44 | | | |
| -65.00 | 35.00 | -8.66 | -9.32 | -5.97 | 0.89303 | 24.12 | |
| RIGHT | 7.22279E-01 | -64.02 | 6.69976E-01 | -149.18 | | | |
| -60.00 | 35.00 | -7.07 | -8.98 | -4.91 | 0.79731 | 6.73 | |
| RIGHT | 8.68091E-01 | -54.67 | 6.96608E-01 | -141.62 | | | |
| -55.00 | 35.00 | -5.55 | -9.57 | -4.10 | 0.62761 | 2.67 | |
| RIGHT | 1.03400E+00 | -44.22 | 6.50455E-01 | -131.65 | | | |
| -50.00 | 35.00 | -3.45 | -11.53 | -2.82 | 0.39391 | 1.46 | |
| RIGHT | 1.31598E+00 | -33.25 | 5.19448E-01 | -120.12 | | | |
| -45.00 | 35.00 | -0.68 | -16.12 | -0.56 | 0.16897 | -0.13 | |
| RIGHT | 1.81112E+00 | -21.87 | 3.06060E-01 | -112.64 | | | |
| -40.00 | 35.00 | 2.18 | -23.25 | 2.19 | 0.01629 | -2.92 | |
| RIGHT | 2.51581E+00 | -9.75 | 1.34776E-01 | -172.00 | | | |
| -35.00 | 35.00 | 4.29 | -12.83 | 4.38 | 0.06756 | -6.94 | LEFT |
| 3.21026E+00 | 3.00 | 4.46908E-01 | 153.49 | | | | |
| -30.00 | 35.00 | 4.85 | -6.92 | 5.13 | 0.10953 | -13.14 | LEFT |
| 3.42420E+00 | 15.22 | 8.82659E-01 | 168.62 | | | | |
| -25.00 | 35.00 | 2.48 | -3.42 | 3.47 | 0.09227 | -26.53 | LEFT |
| 2.60544E+00 | 21.76 | 1.32138E+00 | -171.35 | | | | |
| -20.00 | 35.00 | -3.84 | -1.41 | 0.55 | 0.53560 | -59.70 | |
| RIGHT | 1.25899E+00 | -31.23 | 1.66430E+00 | -151.34 | | | |
| -15.00 | 35.00 | 6.67 | -0.67 | 7.41 | 0.32189 | 16.03 | |
| RIGHT | 4.22094E+00 | -79.59 | 1.81354E+00 | -133.12 | | | |
| -10.00 | 35.00 | 12.84 | -1.08 | 13.01 | 0.14617 | 7.89 | |
| RIGHT | 8.58506E+00 | -70.55 | 1.72842E+00 | -118.25 | | | |
| -5.00 | 35.00 | 15.95 | -2.50 | 16.01 | 0.09638 | 4.05 | |
| RIGHT | 1.22871E+01 | -54.70 | 1.46912E+00 | -108.81 | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| 0.00 | 35.00 | 17.09 | -4.40 | 17.13 | 0.07901 | 1.67 | |
| RIGHT | 1.40157E+01 | -36.90 | 1.18065E+00 | -106.73 | | | |
| -90.00 | 40.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.51834E-22 | -108.56 | 6.43517E-12 | -16.40 | | | | |
| -85.00 | 40.00 | -33.06 | -25.06 | -24.42 | 0.39799 | 89.13 | |
| RIGHT | 4.35629E-02 | -107.77 | 1.09379E-01 | 164.08 | | | |
| -80.00 | 40.00 | -21.52 | -19.21 | -17.20 | 0.76636 | 88.07 | |
| RIGHT | 1.64446E-01 | -105.42 | 2.14446E-01 | 165.62 | | | |
| -75.00 | 40.00 | -15.34 | -16.04 | -12.66 | 0.92304 | 0.41 | |
| RIGHT | 3.34862E-01 | -101.53 | 3.09095E-01 | 168.53 | | | |
| -70.00 | 40.00 | -11.59 | -14.16 | -9.68 | 0.74406 | -1.06 | |
| RIGHT | 5.15455E-01 | -96.18 | 3.83611E-01 | 173.18 | | | |
| -65.00 | 40.00 | -9.32 | -13.29 | -7.86 | 0.63283 | -0.81 | |
| RIGHT | 6.69531E-01 | -89.38 | 4.23790E-01 | 179.85 | | | |
| -60.00 | 40.00 | -7.94 | -13.53 | -6.88 | 0.52548 | -0.47 | |
| RIGHT | 7.85293E-01 | -81.00 | 4.12699E-01 | -171.64 | | | |
| -55.00 | 40.00 | -6.78 | -15.30 | -6.21 | 0.37418 | -1.07 | |
| RIGHT | 8.97636E-01 | -70.57 | 3.36284E-01 | -163.02 | | | |
| -50.00 | 40.00 | -5.09 | -19.90 | -4.95 | 0.17287 | -3.19 | |
| RIGHT | 1.09033E+00 | -57.52 | 1.98013E-01 | -164.82 | | | |
| -45.00 | 40.00 | -2.58 | -21.55 | -2.52 | 0.01245 | -6.39 | LEFT |
| 1.45514E+00 | -42.30 | 1.63880E-01 | 131.27 | | | | |
| -40.00 | 40.00 | 0.17 | -13.01 | 0.37 | 0.12441 | -10.24 | LEFT |
| 1.99707E+00 | -26.37 | 4.37836E-01 | 117.78 | | | | |
| -35.00 | 40.00 | 2.20 | -7.70 | 2.62 | 0.17387 | -15.05 | LEFT |
| 2.52281E+00 | -10.95 | 8.06788E-01 | 133.48 | | | | |
| -30.00 | 40.00 | 2.49 | -4.32 | 3.32 | 0.18487 | -22.73 | LEFT |
| 2.60957E+00 | 2.22 | 1.19139E+00 | 153.98 | | | | |
| -25.00 | 40.00 | -0.72 | -2.32 | 1.57 | 0.07782 | -39.69 | LEFT |
| 1.80349E+00 | 3.69 | 1.49996E+00 | 174.64 | | | | |
| -20.00 | 40.00 | -2.07 | -1.60 | 1.18 | 0.87658 | -57.18 | |
| RIGHT | 1.54273E+00 | -70.04 | 1.62845E+00 | -166.90 | | | |
| -15.00 | 40.00 | 7.87 | -2.16 | 8.28 | 0.28442 | 7.73 | |
| RIGHT | 4.84726E+00 | -86.79 | 1.52635E+00 | -153.50 | | | |
| -10.00 | 40.00 | 13.24 | -3.62 | 13.32 | 0.13921 | 2.01 | |
| RIGHT | 8.98786E+00 | -74.09 | 1.29045E+00 | -150.20 | | | |
| -5.00 | 40.00 | 16.06 | -4.26 | 16.10 | 0.09418 | -1.18 | |
| RIGHT | 1.24407E+01 | -56.52 | 1.19924E+00 | -158.72 | | | |
| 0.00 | 40.00 | 17.08 | -3.09 | 17.13 | 0.07901 | -3.33 | |
| RIGHT | 1.39982E+01 | -37.29 | 1.37288E+00 | -163.37 | | | |
| -90.00 | 45.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.05765E-22 | -133.83 | 2.89646E-12 | -73.95 | | | | |
| -85.00 | 45.00 | -36.19 | -32.00 | -30.60 | 0.47399 | -67.55 | |
| RIGHT | 3.03561E-02 | -133.16 | 4.91931E-02 | 106.85 | | | |
| -80.00 | 45.00 | -24.65 | -26.22 | -22.35 | 0.56385 | -34.90 | |
| RIGHT | 1.14659E-01 | -131.19 | 9.57148E-02 | 109.23 | | | |
| -75.00 | 45.00 | -18.47 | -23.29 | -17.24 | 0.45815 | -19.74 | |
| RIGHT | 2.33438E-01 | -128.04 | 1.34054E-01 | 113.22 | | | |
| -70.00 | 45.00 | -14.75 | -22.06 | -14.01 | 0.36461 | -13.10 | |
| RIGHT | 3.58594E-01 | -123.88 | 1.54546E-01 | 118.42 | | | |
| -65.00 | 45.00 | -12.51 | -22.59 | -12.10 | 0.26929 | -9.15 | |
| RIGHT | 4.63884E-01 | -118.75 | 1.45421E-01 | 122.85 | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -60.00 | 45.00 | -11.16 | -25.56 | -11.01 | 0.13996 | -7.38 | |
| RIGHT | 5.41637E-01 | -112.06 | 1.03272E-01 | | 116.20 | | |
| -55.00 | 45.00 | -10.02 | -26.00 | -9.91 | 0.03413 | -8.83 | LEFT |
| 6.17648E-01 | -101.76 | 9.81855E-02 | 65.54 | | | | |
| -50.00 | 45.00 | -8.28 | -18.42 | -7.88 | 0.20862 | -13.02 | LEFT |
| 7.54761E-01 | -85.26 | 2.34835E-01 | 49.93 | | | | |
| -45.00 | 45.00 | -5.55 | -12.76 | -4.79 | 0.31099 | -17.14 | LEFT |
| 1.03380E+00 | -63.94 | 4.50700E-01 | 65.34 | | | | |
| -40.00 | 45.00 | -2.51 | -8.59 | -1.55 | 0.33120 | -20.59 | LEFT |
| 1.46630E+00 | -42.72 | 7.28837E-01 | 88.80 | | | | |
| -35.00 | 45.00 | -0.39 | -5.39 | 0.80 | 0.31137 | -25.43 | LEFT |
| 1.87225E+00 | -24.30 | 1.05279E+00 | 114.06 | | | | |
| -30.00 | 45.00 | -0.42 | -3.15 | 1.43 | 0.25919 | -34.82 | LEFT |
| 1.86540E+00 | -11.18 | 1.36256E+00 | 138.17 | | | | |
| -25.00 | 45.00 | -4.53 | -2.02 | -0.09 | 0.02047 | -53.18 | |
| RIGHT | 1.16194E+00 | -23.32 | 1.55150E+00 | | 159.12 | | |
| -20.00 | 45.00 | 0.44 | -2.16 | 2.34 | 0.73939 | -3.87 | |
| RIGHT | 2.06028E+00 | -93.51 | 1.52779E+00 | | 174.13 | | |
| -15.00 | 45.00 | 8.81 | -3.23 | 9.08 | 0.24989 | 0.06 | |
| RIGHT | 5.40274E+00 | -92.94 | 1.35011E+00 | | 177.28 | | |
| -10.00 | 45.00 | 13.54 | -3.10 | 13.63 | 0.13132 | -3.83 | |
| RIGHT | 9.30368E+00 | -77.30 | 1.37131E+00 | | 166.19 | | |
| -5.00 | 45.00 | 16.10 | -0.67 | 16.19 | 0.09173 | -6.41 | |
| RIGHT | 1.24939E+01 | -58.18 | 1.81254E+00 | | 161.63 | | |
| 0.00 | 45.00 | 17.01 | 1.42 | 17.13 | 0.07901 | -8.33 | |
| RIGHT | 1.38748E+01 | -37.69 | 2.30737E+00 | | 171.33 | | |
| -90.00 | 50.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 6.14617E-23 | -165.95 | 2.67374E-12 | -177.01 | | | | |
| -85.00 | 50.00 | -40.89 | -32.73 | -32.11 | 0.06627 | -68.93 | LEFT |
| 1.76712E-02 | -165.50 | 4.52202E-02 | 3.27 | | | | |
| -80.00 | 50.00 | -29.30 | -27.00 | -24.99 | 0.10227 | -52.68 | LEFT |
| 6.71000E-02 | -164.28 | 8.74959E-02 | 3.63 | | | | |
| -75.00 | 50.00 | -23.05 | -23.91 | -20.44 | 0.12955 | -42.06 | LEFT |
| 1.37920E-01 | -162.51 | 1.24880E-01 | 2.65 | | | | |
| -70.00 | 50.00 | -19.17 | -21.72 | -17.25 | 0.17547 | -36.17 | LEFT |
| 2.15412E-01 | -160.44 | 1.60648E-01 | -1.24 | | | | |
| -65.00 | 50.00 | -16.69 | -19.40 | -14.83 | 0.24827 | -35.00 | LEFT |
| 2.86658E-01 | -157.74 | 2.09827E-01 | -7.13 | | | | |
| -60.00 | 50.00 | -15.02 | -16.49 | -12.68 | 0.32707 | -39.01 | LEFT |
| 3.47493E-01 | -152.43 | 2.93453E-01 | -9.26 | | | | |
| -55.00 | 50.00 | -13.68 | -13.44 | -10.54 | 0.39126 | -46.09 | LEFT |
| 4.05483E-01 | -139.80 | 4.16978E-01 | -2.56 | | | | |
| -50.00 | 50.00 | -11.92 | -10.74 | -8.28 | 0.47407 | -51.15 | LEFT |
| 4.96293E-01 | -115.05 | 5.68387E-01 | 13.57 | | | | |
| -45.00 | 50.00 | -8.85 | -8.44 | -5.63 | 0.56842 | -47.63 | LEFT |
| 7.06998E-01 | -83.01 | 7.41024E-01 | 37.65 | | | | |
| -40.00 | 50.00 | -5.32 | -6.29 | -2.77 | 0.54905 | -39.02 | LEFT |
| 1.06098E+00 | -55.19 | 9.48788E-01 | 66.71 | | | | |
| -35.00 | 50.00 | -3.11 | -4.28 | -0.65 | 0.45252 | -39.15 | LEFT |
| 1.36861E+00 | -34.45 | 1.19615E+00 | 96.26 | | | | |
| -30.00 | 50.00 | -3.75 | -2.77 | -0.23 | 0.30297 | -48.89 | LEFT |
| 1.27111E+00 | -23.70 | 1.42314E+00 | 122.35 | | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -25.00 | 50.00 | -7.40 | -2.21 | -1.06 | 0.19379 | -62.62 | |
| RIGHT | 8.35328E-01 | -64.20 | 1.51839E+00 | | 142.05 | | |
| -20.00 | 50.00 | 2.37 | -2.63 | 3.56 | 0.54183 | -9.00 | |
| RIGHT | 2.57147E+00 | -107.90 | 1.44630E+00 | | 150.71 | | |
| -15.00 | 50.00 | 9.51 | -2.49 | 9.78 | 0.21818 | -7.11 | |
| RIGHT | 5.85421E+00 | -98.18 | 1.47067E+00 | | 143.63 | | |
| -10.00 | 50.00 | 13.73 | 0.15 | 13.92 | 0.12273 | -9.63 | |
| RIGHT | 9.51547E+00 | -80.15 | 1.99225E+00 | | 136.92 | | |
| -5.00 | 50.00 | 16.06 | 3.09 | 16.27 | 0.08906 | -11.66 | |
| RIGHT | 1.24413E+01 | -59.67 | 2.79487E+00 | | 144.74 | | |
| 0.00 | 50.00 | 16.86 | 4.81 | 17.13 | 0.07901 | -13.33 | |
| RIGHT | 1.36465E+01 | -38.10 | 3.40688E+00 | | 161.41 | | |
| -90.00 | 55.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.81810E-23 | 172.50 | 3.73038E-12 | 150.28 | | | | |
| -85.00 | 55.00 | -45.03 | -29.79 | -29.67 | 0.06528 | -80.89 | LEFT |
| 1.09774E-02 | 172.65 | 6.34156E-02 | -30.10 | | | | |
| -80.00 | 55.00 | -33.43 | -23.88 | -23.43 | 0.12633 | -72.85 | LEFT |
| 4.17253E-02 | 173.02 | 1.25239E-01 | -31.48 | | | | |
| -75.00 | 55.00 | -27.13 | -20.37 | -19.54 | 0.18141 | -67.03 | LEFT |
| 8.62209E-02 | 173.41 | 1.87570E-01 | -34.16 | | | | |
| -70.00 | 55.00 | -23.13 | -17.54 | -16.48 | 0.22543 | -64.44 | LEFT |
| 1.36647E-01 | 173.96 | 2.59915E-01 | -37.43 | | | | |
| -65.00 | 55.00 | -20.43 | -14.79 | -13.74 | 0.24786 | -65.14 | LEFT |
| 1.86295E-01 | 176.05 | 3.56870E-01 | -38.65 | | | | |
| -60.00 | 55.00 | -18.62 | -12.13 | -11.25 | 0.25450 | -68.08 | LEFT |
| 2.29638E-01 | -176.50 | 4.84767E-01 | -34.65 | | | | |
| -55.00 | 55.00 | -17.35 | -9.84 | -9.13 | 0.28216 | -72.51 | LEFT |
| 2.65769E-01 | -156.81 | 6.30717E-01 | -23.72 | | | | |
| -50.00 | 55.00 | -15.22 | -8.09 | -7.32 | 0.38412 | -77.67 | LEFT |
| 3.39709E-01 | -120.19 | 7.71280E-01 | -5.34 | | | | |
| -45.00 | 55.00 | -10.99 | -6.76 | -5.37 | 0.58468 | -78.60 | LEFT |
| 5.52539E-01 | -81.91 | 8.99614E-01 | 20.39 | | | | |
| -40.00 | 55.00 | -6.98 | -5.46 | -3.15 | 0.71630 | -61.32 | LEFT |
| 8.76404E-01 | -54.57 | 1.04439E+00 | 51.40 | | | | |
| -35.00 | 55.00 | -5.11 | -4.06 | -1.54 | 0.59162 | -52.24 | LEFT |
| 1.08760E+00 | -35.47 | 1.22741E+00 | 82.54 | | | | |
| -30.00 | 55.00 | -7.15 | -2.97 | -1.57 | 0.32892 | -61.85 | LEFT |
| 8.60160E-01 | -30.23 | 1.39069E+00 | 108.21 | | | | |
| -25.00 | 55.00 | -7.51 | -2.65 | -1.42 | 0.36045 | -65.64 | |
| RIGHT | 8.24870E-01 | -103.90 | 1.44411E+00 | | 123.89 | | |
| -20.00 | 55.00 | 3.62 | -2.42 | 4.59 | 0.41435 | -15.84 | |
| RIGHT | 2.97194E+00 | -117.76 | 1.48210E+00 | | 124.55 | | |
| -15.00 | 55.00 | 9.98 | -0.17 | 10.38 | 0.18888 | -13.89 | |
| RIGHT | 6.17644E+00 | -102.57 | 1.91952E+00 | | 117.48 | | |
| -10.00 | 55.00 | 13.82 | 3.28 | 14.18 | 0.11362 | -15.38 | |
| RIGHT | 9.60936E+00 | -82.63 | 2.85848E+00 | | 121.60 | | |
| -5.00 | 55.00 | 15.95 | 5.93 | 16.36 | 0.08623 | -16.90 | |
| RIGHT | 1.22784E+01 | -60.99 | 3.87645E+00 | | 136.35 | | |
| 0.00 | 55.00 | 16.65 | 7.29 | 17.13 | 0.07901 | -18.33 | |
| RIGHT | 1.33151E+01 | -38.53 | 4.53240E+00 | | 156.38 | | |
| -90.00 | 60.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.63973E-23 | -158.45 | 3.15520E-12 | -178.69 | | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -85.00 | 60.00 | -45.54 | -31.55 | -31.38 | 0.07398 | -79.48 | LEFT |
| 1.03505E-02 | -157.84 | 5.17919E-02 | -0.35 | | | | |
| -80.00 | 60.00 | -34.22 | -26.51 | -25.83 | 0.18514 | -69.78 | LEFT |
| 3.80763E-02 | -156.00 | 9.25599E-02 | -6.58 | | | | |
| -75.00 | 60.00 | -28.39 | -24.00 | -22.65 | 0.37240 | -64.01 | LEFT |
| 7.45546E-02 | -152.84 | 1.23525E-01 | -20.51 | | | | |
| -70.00 | 60.00 | -24.99 | -21.09 | -19.61 | 0.57193 | -73.08 | LEFT |
| 1.10230E-01 | -147.86 | 1.72718E-01 | -39.72 | | | | |
| -65.00 | 60.00 | -22.79 | -17.12 | -16.08 | 0.52005 | 88.97 | LEFT |
| 1.41974E-01 | -139.33 | 2.72853E-01 | -50.78 | | | | |
| -60.00 | 60.00 | -20.62 | -13.45 | -12.68 | 0.41746 | 82.32 | LEFT |
| 1.82413E-01 | -124.07 | 4.16460E-01 | -48.75 | | | | |
| -55.00 | 60.00 | -17.25 | -10.74 | -9.86 | 0.41128 | 76.62 | LEFT |
| 2.68895E-01 | -101.98 | 5.68649E-01 | -36.44 | | | | |
| -50.00 | 60.00 | -12.76 | -8.97 | -7.45 | 0.51971 | 67.82 | LEFT |
| 4.50757E-01 | -79.39 | 6.97525E-01 | -15.54 | | | | |
| -45.00 | 60.00 | -8.50 | -7.71 | -5.08 | 0.72621 | 53.57 | LEFT |
| 7.35605E-01 | -59.61 | 8.06060E-01 | 13.12 | | | | |
| -40.00 | 60.00 | -5.58 | -6.38 | -2.95 | 0.90532 | 10.63 | LEFT |
| 1.03057E+00 | -41.76 | 9.39375E-01 | 46.17 | | | | |
| -35.00 | 60.00 | -4.94 | -4.91 | -1.92 | 0.80481 | -45.51 | LEFT |
| 1.10860E+00 | -25.79 | 1.11284E+00 | 76.56 | | | | |
| -30.00 | 60.00 | -9.45 | -3.85 | -2.80 | 0.42380 | -72.38 | LEFT |
| 6.59580E-01 | -21.17 | 1.25665E+00 | 98.01 | | | | |
| -25.00 | 60.00 | -6.98 | -3.23 | -1.70 | 0.44973 | -63.90 | |
| RIGHT | 8.77226E-01 | -129.35 | 1.35083E+00 | | 105.63 | | |
| -20.00 | 60.00 | 4.32 | -1.35 | 5.36 | 0.32286 | -22.51 | |
| RIGHT | 3.22131E+00 | -124.98 | 1.67717E+00 | | 100.56 | | |
| -15.00 | 60.00 | 10.22 | 2.35 | 10.88 | 0.16154 | -20.35 | |
| RIGHT | 6.35371E+00 | -106.18 | 2.56640E+00 | | 100.78 | | |
| -10.00 | 60.00 | 13.79 | 5.80 | 14.43 | 0.10419 | -21.07 | |
| RIGHT | 9.57541E+00 | -84.72 | 3.81915E+00 | | 112.71 | | |
| -5.00 | 60.00 | 15.75 | 8.11 | 16.44 | 0.08325 | -22.14 | |
| RIGHT | 1.20028E+01 | -62.15 | 4.98287E+00 | | 131.36 | | |
| 0.00 | 60.00 | 16.36 | 9.19 | 17.13 | 0.07901 | -23.33 | |
| RIGHT | 1.28831E+01 | -38.98 | 5.64445E+00 | | 153.35 | | |
| -90.00 | 65.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 6.35929E-23 | -136.46 | 6.72729E-12 | -128.56 | | | | |
| -85.00 | 65.00 | -40.61 | -25.02 | -24.90 | 0.02228 | -80.65 | |
| RIGHT | 1.82551E-02 | -135.25 | 1.09859E-01 | | 52.66 | | |
| -80.00 | 65.00 | -29.03 | -20.27 | -19.72 | 0.04441 | -70.10 | |
| RIGHT | 6.92483E-02 | -131.61 | 1.89909E-01 | | 56.31 | | |
| -75.00 | 65.00 | -22.68 | -19.12 | -17.54 | 0.06223 | -56.51 | |
| RIGHT | 1.43878E-01 | -125.47 | 2.16678E-01 | | 62.26 | | |
| -70.00 | 65.00 | -18.45 | -20.75 | -16.44 | 0.05627 | -37.47 | |
| RIGHT | 2.33989E-01 | -116.80 | 1.79682E-01 | | 69.86 | | |
| -65.00 | 65.00 | -15.19 | -26.94 | -14.91 | 0.00451 | -14.49 | LEFT |
| 3.40855E-01 | -105.81 | 8.81014E-02 | 73.12 | | | | |
| -60.00 | 65.00 | -12.19 | -31.44 | -12.14 | 0.09442 | 3.13 | LEFT |
| 4.81042E-01 | -93.08 | 5.24877E-02 | -32.86 | | | | |
| -55.00 | 65.00 | -9.16 | -21.12 | -8.90 | 0.18125 | 9.97 | LEFT |
| 6.81888E-01 | -79.37 | 1.72112E-01 | -31.68 | | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -50.00 | 65.00 | -6.19 | -16.49 | -5.81 | 0.26855 | 8.33 | LEFT |
| 9.59895E-01 | -65.04 | 2.93384E-01 | -1.39 | | | | |
| -45.00 | 65.00 | -3.68 | -12.76 | -3.17 | 0.34952 | 2.28 | LEFT |
| 1.28181E+00 | -49.89 | 4.50862E-01 | 34.42 | | | | |
| -40.00 | 65.00 | -2.19 | -9.39 | -1.44 | 0.42913 | -4.77 | LEFT |
| 1.52126E+00 | -33.69 | 6.64596E-01 | 65.26 | | | | |
| -35.00 | 65.00 | -2.66 | -7.03 | -1.31 | 0.57155 | -11.85 | LEFT |
| 1.44154E+00 | -16.65 | 8.71452E-01 | 86.67 | | | | |
| -30.00 | 65.00 | -8.42 | -5.80 | -3.90 | 0.72129 | -79.23 | LEFT |
| 7.42532E-01 | -1.68 | 1.00473E+00 | 95.28 | | | | |
| -25.00 | 65.00 | -7.31 | -4.02 | -2.35 | 0.45967 | -61.89 | |
| RIGHT | 8.43742E-01 | -146.48 | 1.23287E+00 | | 88.03 | | |
| -20.00 | 65.00 | 4.57 | 0.13 | 5.90 | 0.25038 | -28.88 | |
| RIGHT | 3.31289E+00 | -130.39 | 1.98808E+00 | | 81.89 | | |
| -15.00 | 65.00 | 10.26 | 4.53 | 11.29 | 0.13581 | -26.58 | |
| RIGHT | 6.38022E+00 | -109.02 | 3.29958E+00 | | 90.06 | | |
| -10.00 | 65.00 | 13.63 | 7.81 | 14.64 | 0.09458 | -26.71 | |
| RIGHT | 9.40815E+00 | -86.40 | 4.81104E+00 | | 106.97 | | |
| -5.00 | 65.00 | 15.46 | 9.84 | 16.51 | 0.08019 | -27.38 | |
| RIGHT | 1.16135E+01 | -63.13 | 6.08229E+00 | | 128.05 | | |
| 0.00 | 65.00 | 16.00 | 10.71 | 17.13 | 0.07901 | -28.33 | |
| RIGHT | 1.23539E+01 | -39.47 | 6.72417E+00 | | 151.31 | | |
| -90.00 | 70.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 8.19184E-23 | -131.41 | 1.12758E-11 | -116.89 | | | | |
| -85.00 | 70.00 | -38.31 | -20.36 | -20.29 | 0.03188 | -83.01 | |
| RIGHT | 2.37837E-02 | -130.17 | 1.87824E-01 | | 64.64 | | |
| -80.00 | 70.00 | -26.43 | -15.02 | -14.72 | 0.06813 | -75.42 | |
| RIGHT | 9.33781E-02 | -126.47 | 3.47428E-01 | | 69.22 | | |
| -75.00 | 70.00 | -19.59 | -12.61 | -11.82 | 0.11175 | -66.53 | |
| RIGHT | 2.05389E-01 | -120.43 | 4.58559E-01 | | 76.78 | | |
| -70.00 | 70.00 | -14.72 | -11.60 | -9.88 | 0.15793 | -55.63 | |
| RIGHT | 3.59473E-01 | -112.25 | 5.15032E-01 | | 86.91 | | |
| -65.00 | 70.00 | -10.83 | -11.41 | -8.10 | 0.18250 | -42.96 | |
| RIGHT | 5.62889E-01 | -102.27 | 5.26560E-01 | | 98.47 | | |
| -60.00 | 70.00 | -7.46 | -11.59 | -6.04 | 0.15466 | -31.15 | |
| RIGHT | 8.30099E-01 | -90.80 | 5.15661E-01 | | 108.89 | | |
| -55.00 | 70.00 | -4.46 | -11.59 | -3.69 | 0.08246 | -23.39 | |
| RIGHT | 1.17208E+00 | -78.05 | 5.15877E-01 | | 114.78 | | |
| -50.00 | 70.00 | -1.91 | -10.71 | -1.37 | 0.00029 | -19.95 | LEFT |
| 1.57252E+00 | -64.02 | 5.70887E-01 | 115.93 | | | | |
| -45.00 | 70.00 | -0.01 | -8.99 | 0.50 | 0.07503 | -19.18 | LEFT |
| 1.95514E+00 | -48.58 | 6.95520E-01 | 117.76 | | | | |
| -40.00 | 70.00 | 0.84 | -7.56 | 1.43 | 0.14577 | -19.38 | LEFT |
| 2.15794E+00 | -31.61 | 8.20411E-01 | 122.94 | | | | |
| -35.00 | 70.00 | -0.08 | -7.57 | 0.63 | 0.24709 | -19.00 | LEFT |
| 1.93958E+00 | -12.94 | 8.19155E-01 | 126.54 | | | | |
| -30.00 | 70.00 | -5.49 | -9.17 | -3.94 | 0.62484 | -12.19 | LEFT |
| 1.04030E+00 | 8.69 | 6.81603E-01 | 110.07 | | | | |
| -25.00 | 70.00 | -8.73 | -5.20 | -3.60 | 0.42636 | -61.93 | |
| RIGHT | 7.16715E-01 | -160.83 | 1.07664E+00 | | 70.62 | | |
| -20.00 | 70.00 | 4.43 | 1.57 | 6.24 | 0.18817 | -35.02 | |
| RIGHT | 3.26107E+00 | -134.30 | 2.34545E+00 | | 68.24 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -15.00 | 70.00 | 10.09 | 6.32 | 11.61 | 0.11142 | -32.60 | |
| RIGHT | 6.25920E+00 | -111.09 | 4.05256E+00 | | 82.87 | | |
| -10.00 | 70.00 | 13.35 | 9.43 | 14.83 | 0.08496 | -32.29 | |
| RIGHT | 9.10667E+00 | -87.68 | 5.79718E+00 | | 103.05 | | |
| -5.00 | 70.00 | 15.08 | 11.25 | 16.58 | 0.07707 | -32.62 | |
| RIGHT | 1.11117E+01 | -63.95 | 7.15410E+00 | | 125.74 | | |
| 0.00 | 70.00 | 15.55 | 11.96 | 17.13 | 0.07901 | -33.33 | |
| RIGHT | 1.17317E+01 | -40.01 | 7.75891E+00 | | 149.82 | | |
| -90.00 | 75.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 7.05268E-23 | -127.56 | 1.09328E-11 | -106.13 | | | | |
| -85.00 | 75.00 | -39.45 | -20.46 | -20.41 | 0.04096 | -84.03 | |
| RIGHT | 2.08650E-02 | -126.45 | 1.85738E-01 | | 75.18 | | |
| -80.00 | 75.00 | -27.10 | -14.59 | -14.35 | 0.08505 | -77.54 | |
| RIGHT | 8.64466E-02 | -123.17 | 3.65109E-01 | | 78.95 | | |
| -75.00 | 75.00 | -19.56 | -11.26 | -10.66 | 0.13080 | -70.09 | |
| RIGHT | 2.06103E-01 | -117.86 | 5.35765E-01 | | 84.71 | | |
| -70.00 | 75.00 | -13.89 | -8.92 | -7.72 | 0.16740 | -61.58 | |
| RIGHT | 3.95825E-01 | -110.66 | 7.01647E-01 | | 91.70 | | |
| -65.00 | 75.00 | -9.24 | -7.02 | -4.98 | 0.17779 | -52.74 | |
| RIGHT | 6.75788E-01 | -101.70 | 8.72907E-01 | | 99.15 | | |
| -60.00 | 75.00 | -5.32 | -5.31 | -2.30 | 0.15562 | -45.04 | |
| RIGHT | 1.06177E+00 | -91.04 | 1.06316E+00 | | 106.65 | | |
| -55.00 | 75.00 | -2.04 | -3.69 | 0.22 | 0.11335 | -39.46 | |
| RIGHT | 1.54798E+00 | -78.69 | 1.28084E+00 | | 114.48 | | |
| -50.00 | 75.00 | 0.53 | -2.26 | 2.37 | 0.06724 | -35.86 | |
| RIGHT | 2.08276E+00 | -64.64 | 1.51029E+00 | | 123.46 | | |
| -45.00 | 75.00 | 2.28 | -1.29 | 3.86 | 0.02519 | -33.54 | |
| RIGHT | 2.54547E+00 | -48.89 | 1.68831E+00 | | 134.24 | | |
| -40.00 | 75.00 | 2.92 | -1.26 | 4.32 | 0.01405 | -31.73 | LEFT |
| 2.74031E+00 | -31.40 | 1.69476E+00 | 146.80 | | | | |
| -35.00 | 75.00 | 1.85 | -3.08 | 3.06 | 0.06344 | -29.40 | LEFT |
| 2.42460E+00 | -11.94 | 1.37397E+00 | 159.59 | | | | |
| -30.00 | 75.00 | -3.03 | -10.08 | -2.24 | 0.20361 | -21.62 | LEFT |
| 1.38220E+00 | 11.53 | 6.13757E-01 | 159.72 | | | | |
| -25.00 | 75.00 | -11.18 | -6.82 | -5.46 | 0.36620 | -63.72 | |
| RIGHT | 5.40547E-01 | -175.86 | 8.93439E-01 | | 50.95 | | |
| -20.00 | 75.00 | 3.97 | 2.79 | 6.43 | 0.13170 | -40.98 | |
| RIGHT | 3.09248E+00 | -136.82 | 2.69968E+00 | | 58.33 | | |
| -15.00 | 75.00 | 9.73 | 7.76 | 11.86 | 0.08827 | -38.46 | |
| RIGHT | 6.00116E+00 | -112.39 | 4.78349E+00 | | 77.96 | | |
| -10.00 | 75.00 | 12.93 | 10.75 | 14.98 | 0.07546 | -37.80 | |
| RIGHT | 8.67439E+00 | -88.53 | 6.74996E+00 | | 100.37 | | |
| -5.00 | 75.00 | 14.59 | 12.42 | 16.65 | 0.07395 | -37.85 | |
| RIGHT | 1.05004E+01 | -64.61 | 8.18170E+00 | | 124.12 | | |
| 0.00 | 75.00 | 15.01 | 12.99 | 17.13 | 0.07901 | -38.33 | |
| RIGHT | 1.10213E+01 | -40.61 | 8.73862E+00 | | 148.68 | | |
| -90.00 | 80.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.61784E-23 | -118.04 | 5.45277E-12 | -60.03 | | | | |
| -85.00 | 80.00 | -44.77 | -26.23 | -26.17 | 0.09692 | -86.12 | |
| RIGHT | 1.13057E-02 | -117.85 | 9.55855E-02 | | 117.55 | | |
| -80.00 | 80.00 | -31.22 | -19.45 | -19.17 | 0.18641 | -79.87 | |
| RIGHT | 5.38166E-02 | -116.73 | 2.08518E-01 | | 111.38 | | |

| | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|
| -75.00 | 80.00 | -22.20 | -14.52 | -13.83 | 0.22995 | -70.97 |
| RIGHT | 1.52098E-01 | -113.74 | 3.68117E-01 | | 104.49 | |
| -70.00 | 80.00 | -15.16 | -10.11 | -8.93 | 0.21377 | -62.50 |
| RIGHT | 3.41920E-01 | -108.41 | 6.11309E-01 | | 100.27 | |
| -65.00 | 80.00 | -9.45 | -6.15 | -4.48 | 0.17239 | -56.31 |
| RIGHT | 6.59935E-01 | -100.69 | 9.64577E-01 | | 100.36 | |
| -60.00 | 80.00 | -4.80 | -2.75 | -0.65 | 0.13195 | -51.95 |
| RIGHT | 1.12656E+00 | -90.72 | 1.42677E+00 | | 104.74 | |
| -55.00 | 80.00 | -1.11 | -0.01 | 2.48 | 0.09959 | -48.69 |
| RIGHT | 1.72312E+00 | -78.66 | 1.95577E+00 | | 112.80 | |
| -50.00 | 80.00 | 1.65 | 1.98 | 4.83 | 0.07519 | -46.08 |
| RIGHT | 2.36861E+00 | -64.66 | 2.45865E+00 | | 123.94 | |
| -45.00 | 80.00 | 3.43 | 3.08 | 6.27 | 0.05701 | -43.83 |
| RIGHT | 2.90671E+00 | -48.83 | 2.79132E+00 | | 137.71 | |
| -40.00 | 80.00 | 4.04 | 3.03 | 6.57 | 0.04304 | -41.68 |
| RIGHT | 3.11657E+00 | -31.20 | 2.77555E+00 | | 153.76 | |
| -35.00 | 80.00 | 2.97 | 1.16 | 5.17 | 0.03052 | -39.05 |
| RIGHT | 2.75739E+00 | -11.59 | 2.23757E+00 | | 171.98 | |
| -30.00 | 80.00 | -1.50 | -5.30 | 0.01 | 0.01281 | -32.86 |
| RIGHT | 1.64730E+00 | 11.81 | 1.06428E+00 | | -166.58 | |
| -25.00 | 80.00 | -14.55 | -8.36 | -7.42 | 0.26973 | -67.58 |
| RIGHT | 3.66618E-01 | 165.61 | 7.48244E-01 | | 25.13 | |
| -20.00 | 80.00 | 3.22 | 3.78 | 6.52 | 0.07892 | -46.85 |
| RIGHT | 2.83814E+00 | -137.89 | 3.02542E+00 | | 51.16 | |
| -15.00 | 80.00 | 9.16 | 8.91 | 12.05 | 0.06636 | -44.18 |
| RIGHT | 5.62160E+00 | -112.90 | 5.46386E+00 | | 74.70 | |
| -10.00 | 80.00 | 12.35 | 11.83 | 15.11 | 0.06622 | -43.27 |
| RIGHT | 8.11865E+00 | -88.97 | 7.64657E+00 | | 98.62 | |
| -5.00 | 80.00 | 13.97 | 13.39 | 16.70 | 0.07087 | -43.06 |
| RIGHT | 9.78462E+00 | -65.12 | 9.15051E+00 | | 123.01 | |
| 0.00 | 80.00 | 14.36 | 13.86 | 17.13 | 0.07901 | -43.33 |
| RIGHT | 1.02285E+01 | -41.29 | 9.65461E+00 | | 147.76 | |
| -90.00 | 85.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 |
| 7.11294E-24 | -30.67 | 1.06301E-11 | 32.87 | | | |
| -85.00 | 85.00 | -58.98 | -21.34 | -21.34 | 0.01312 | 89.98 |
| RIGHT | 2.20161E-03 | -59.25 | 1.67753E-01 | | -147.88 | |
| -80.00 | 85.00 | -40.73 | -17.68 | -17.66 | 0.05692 | 87.63 |
| RIGHT | 1.79948E-02 | -98.04 | 2.55820E-01 | | -152.20 | |
| -75.00 | 85.00 | -27.40 | -18.79 | -18.23 | 0.33355 | 80.65 |
| RIGHT | 8.35708E-02 | -107.39 | 2.25019E-01 | | -174.27 | |
| -70.00 | 85.00 | -17.89 | -15.81 | -13.72 | 0.41352 | -54.69 |
| RIGHT | 2.49591E-01 | -105.59 | 3.17136E-01 | | 121.02 | |
| -65.00 | 85.00 | -10.80 | -7.58 | -5.89 | 0.15982 | -55.93 |
| RIGHT | 5.64993E-01 | -99.01 | 8.17916E-01 | | 100.46 | |
| -60.00 | 85.00 | -5.37 | -1.93 | -0.31 | 0.09788 | -56.28 |
| RIGHT | 1.05511E+00 | -89.43 | 1.56735E+00 | | 102.65 | |
| -55.00 | 85.00 | -1.25 | 1.88 | 3.60 | 0.07587 | -55.24 |
| RIGHT | 1.69589E+00 | -77.53 | 2.43253E+00 | | 111.72 | |
| -50.00 | 85.00 | 1.74 | 4.37 | 6.26 | 0.06723 | -53.64 |
| RIGHT | 2.39214E+00 | -63.62 | 3.24005E+00 | | 124.43 | |
| -45.00 | 85.00 | 3.62 | 5.69 | 7.79 | 0.06525 | -51.81 |
| RIGHT | 2.97124E+00 | -47.89 | 3.76967E+00 | | 139.80 | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -40.00 | 85.00 | 4.28 | 5.73 | 8.07 | 0.06854 | -49.83 | |
| RIGHT | 3.20370E+00 | -30.42 | 3.78867E+00 | | 157.53 | | |
| -35.00 | 85.00 | 3.28 | 4.01 | 6.67 | 0.07991 | -47.46 | |
| RIGHT | 2.85552E+00 | -11.12 | 3.10842E+00 | | 178.06 | | |
| -30.00 | 85.00 | -0.90 | -1.44 | 1.85 | 0.12442 | -43.15 | |
| RIGHT | 1.76636E+00 | 11.35 | 1.65901E+00 | | -154.44 | | |
| -25.00 | 85.00 | -18.76 | -8.39 | -8.01 | 0.16067 | -75.58 | |
| RIGHT | 2.25784E-01 | 140.97 | 7.45157E-01 | | -4.67 | | |
| -20.00 | 85.00 | 2.22 | 4.57 | 6.56 | 0.02943 | -52.67 | |
| RIGHT | 2.52750E+00 | -137.32 | 3.31310E+00 | | 46.18 | | |
| -15.00 | 85.00 | 8.38 | 9.83 | 12.18 | 0.04578 | -49.79 | |
| RIGHT | 5.13875E+00 | -112.59 | 6.07358E+00 | | 72.73 | | |
| -10.00 | 85.00 | 11.61 | 12.72 | 15.21 | 0.05734 | -48.68 | |
| RIGHT | 7.45007E+00 | -88.99 | 8.46775E+00 | | 97.62 | | |
| -5.00 | 85.00 | 13.22 | 14.20 | 16.75 | 0.06788 | -48.27 | |
| RIGHT | 8.97129E+00 | -65.51 | 1.00475E+01 | | 122.30 | | |
| 0.00 | 85.00 | 13.59 | 14.59 | 17.13 | 0.07901 | -48.33 | |
| RIGHT | 9.35953E+00 | -42.10 | 1.04992E+01 | | 146.99 | | |
| -90.00 | 90.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.91097E-23 | 46.02 | 1.92986E-11 | 56.68 | | | | |
| -85.00 | 90.00 | -52.84 | -16.04 | -16.04 | 0.00324 | -89.19 | |
| RIGHT | 4.46480E-03 | 44.59 | 3.08813E-01 | | -122.44 | | |
| -80.00 | 90.00 | -50.95 | -11.97 | -11.97 | 0.00758 | -89.52 | |
| RIGHT | 5.55205E-03 | 17.64 | 4.93542E-01 | | -119.97 | | |
| -75.00 | 90.00 | -34.06 | -12.85 | -12.82 | 0.02077 | 85.17 | |
| RIGHT | 3.88001E-02 | -103.05 | 4.45890E-01 | | -116.96 | | |
| -70.00 | 90.00 | -21.01 | -25.56 | -19.70 | 0.26358 | 28.22 | |
| RIGHT | 1.74391E-01 | -103.71 | 1.03228E-01 | | -137.92 | | |
| -65.00 | 90.00 | -12.67 | -10.15 | -8.22 | 0.07316 | -53.29 | |
| RIGHT | 4.55154E-01 | -96.92 | 6.08426E-01 | | 91.81 | | |
| -60.00 | 90.00 | -6.67 | -1.87 | -0.63 | 0.04899 | -60.16 | |
| RIGHT | 9.08726E-01 | -87.16 | 1.57909E+00 | | 99.33 | | |
| -55.00 | 90.00 | -2.23 | 2.79 | 3.97 | 0.04933 | -60.79 | |
| RIGHT | 1.51433E+00 | -75.26 | 2.69896E+00 | | 111.37 | | |
| -50.00 | 90.00 | 0.94 | 5.64 | 6.91 | 0.05567 | -59.91 | |
| RIGHT | 2.18204E+00 | -61.49 | 3.74992E+00 | | 125.84 | | |
| -45.00 | 90.00 | 2.94 | 7.15 | 8.54 | 0.06596 | -58.48 | |
| RIGHT | 2.74781E+00 | -46.05 | 4.45835E+00 | | 142.41 | | |
| -40.00 | 90.00 | 3.69 | 7.32 | 8.88 | 0.08157 | -56.79 | |
| RIGHT | 2.99426E+00 | -29.02 | 4.54615E+00 | | 161.14 | | |
| -35.00 | 90.00 | 2.79 | 5.77 | 7.54 | 0.10927 | -54.86 | |
| RIGHT | 2.70134E+00 | -10.41 | 3.80317E+00 | | -177.19 | | |
| -30.00 | 90.00 | -1.13 | 0.95 | 3.04 | 0.18853 | -52.31 | |
| RIGHT | 1.71866E+00 | 10.43 | 2.18355E+00 | | -147.57 | | |
| -25.00 | 90.00 | -24.34 | -6.79 | -6.72 | 0.10312 | -85.23 | |
| RIGHT | 1.18880E-01 | 102.49 | 8.96072E-01 | | -26.01 | | |
| -20.00 | 90.00 | 0.95 | 5.19 | 6.58 | 0.01615 | -58.47 | LEFT |
| 2.18486E+00 | -134.83 | 3.55985E+00 | 43.09 | | | | |
| -15.00 | 90.00 | 7.36 | 10.55 | 12.25 | 0.02666 | -55.30 | |
| RIGHT | 4.57179E+00 | -111.40 | 6.59815E+00 | | 71.86 | | |
| -10.00 | 90.00 | 10.66 | 13.44 | 15.28 | 0.04894 | -54.05 | |
| RIGHT | 6.68190E+00 | -88.62 | 9.19738E+00 | | 97.28 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -5.00 | 90.00 | 12.30 | 14.88 | 16.79 | 0.06501 | -53.46 | |
| RIGHT | 8.06903E+00 | -65.83 | 1.08610E+01 | | 121.95 | | |
| 0.00 | 90.00 | 12.67 | 15.20 | 17.13 | 0.07901 | -53.33 | |
| RIGHT | 8.42160E+00 | -43.09 | 1.12654E+01 | | 146.34 | | |
| -90.00 | 95.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.47681E-23 | 62.79 | 2.11228E-11 | 74.39 | | | | |
| -85.00 | 95.00 | -55.13 | -15.21 | -15.21 | 0.00210 | -89.43 | |
| RIGHT | 3.43179E-03 | 63.86 | 3.39737E-01 | | -104.11 | | |
| -80.00 | 95.00 | -55.41 | -10.97 | -10.97 | 0.00129 | -89.66 | |
| RIGHT | 3.32288E-03 | 68.33 | 5.53738E-01 | | -99.26 | | |
| -75.00 | 95.00 | -36.40 | -11.31 | -11.30 | 0.01961 | 87.02 | LEFT |
| 2.96465E-02 | -109.53 | 5.32677E-01 | -88.85 | | | | |
| -70.00 | 95.00 | -23.07 | -18.30 | -17.05 | 0.40698 | 67.19 | LEFT |
| 1.37453E-01 | -102.58 | 2.38282E-01 | -48.81 | | | | |
| -65.00 | 95.00 | -14.64 | -10.46 | -9.05 | 0.10971 | -58.62 | LEFT |
| 3.63105E-01 | -94.06 | 5.87297E-01 | 71.92 | | | | |
| -60.00 | 95.00 | -8.53 | -1.82 | -0.98 | 0.00436 | -65.22 | LEFT |
| 7.33140E-01 | -83.83 | 1.58827E+00 | 95.51 | | | | |
| -55.00 | 95.00 | -4.00 | 3.06 | 3.84 | 0.02527 | -66.09 | |
| RIGHT | 1.23630E+00 | -71.96 | 2.78445E+00 | | 111.95 | | |
| -50.00 | 95.00 | -0.71 | 6.07 | 6.90 | 0.04541 | -65.49 | |
| RIGHT | 1.80413E+00 | -58.50 | 3.93880E+00 | | 128.37 | | |
| -45.00 | 95.00 | 1.41 | 7.71 | 8.62 | 0.06556 | -64.36 | |
| RIGHT | 2.30283E+00 | -43.58 | 4.75525E+00 | | 146.00 | | |
| -40.00 | 95.00 | 2.28 | 8.01 | 9.04 | 0.09071 | -62.99 | |
| RIGHT | 2.54653E+00 | -27.30 | 4.92426E+00 | | 165.44 | | |
| -35.00 | 95.00 | 1.54 | 6.64 | 7.81 | 0.13077 | -61.55 | |
| RIGHT | 2.33765E+00 | -9.84 | 4.20393E+00 | | -172.22 | | |
| -30.00 | 95.00 | -2.15 | 2.26 | 3.60 | 0.23269 | -60.70 | |
| RIGHT | 1.52973E+00 | 8.52 | 2.53907E+00 | | -141.52 | | |
| -25.00 | 95.00 | -26.08 | -4.99 | -4.96 | 0.06900 | 86.85 | |
| RIGHT | 9.73032E-02 | 16.25 | 1.10226E+00 | | -35.38 | | |
| -20.00 | 95.00 | -0.59 | 5.67 | 6.59 | 0.05686 | -64.22 | LEFT |
| 1.82899E+00 | -129.98 | 3.76278E+00 | 41.73 | | | | |
| -15.00 | 95.00 | 6.07 | 11.10 | 12.28 | 0.00916 | -60.72 | |
| RIGHT | 3.93977E+00 | -109.27 | 7.02678E+00 | | 71.96 | | |
| -10.00 | 95.00 | 9.47 | 14.01 | 15.32 | 0.04112 | -59.36 | |
| RIGHT | 5.82940E+00 | -87.86 | 9.82247E+00 | | 97.51 | | |
| -5.00 | 95.00 | 11.17 | 15.44 | 16.82 | 0.06230 | -58.65 | |
| RIGHT | 7.08805E+00 | -66.12 | 1.15811E+01 | | 121.89 | | |
| 0.00 | 95.00 | 11.57 | 15.71 | 17.13 | 0.07901 | -58.33 | |
| RIGHT | 7.42269E+00 | -44.33 | 1.19473E+01 | | 145.76 | | |
| -90.00 | 100.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.33970E-24 | 152.80 | 1.55254E-11 | 98.91 | | | | |
| -85.00 | 100.00 | -70.31 | -17.86 | -17.86 | 0.00225 | 89.96 | LEFT |
| 5.97678E-04 | -149.60 | 2.50640E-01 | -78.65 | | | | |
| -80.00 | 100.00 | -47.83 | -13.47 | -13.47 | 0.01406 | 89.26 | LEFT |
| 7.94896E-03 | -117.53 | 4.15203E-01 | -70.25 | | | | |
| -75.00 | 100.00 | -33.91 | -13.13 | -13.09 | 0.07625 | 87.11 | LEFT |
| 3.94877E-02 | -106.83 | 4.31908E-01 | -50.10 | | | | |
| -70.00 | 100.00 | -24.15 | -13.94 | -13.55 | 0.30068 | -86.00 | LEFT |
| 1.21397E-01 | -98.44 | 3.93324E-01 | 3.46 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -65.00 | 100.00 | -16.80 | -7.98 | -7.45 | 0.14223 | -71.54 | LEFT |
| 2.83038E-01 | -89.51 | 7.81047E-01 | 64.69 | | | | |
| -60.00 | 100.00 | -11.08 | -1.65 | -1.18 | 0.03609 | -71.45 | LEFT |
| 5.46601E-01 | -79.40 | 1.61958E+00 | 93.77 | | | | |
| -55.00 | 100.00 | -6.64 | 2.77 | 3.24 | 0.00889 | -71.31 | |
| RIGHT | 9.11925E-01 | -67.94 | 2.69462E+00 | | 113.74 | | |
| -50.00 | 100.00 | -3.30 | 5.74 | 6.25 | 0.03907 | -70.65 | |
| RIGHT | 1.33930E+00 | -55.13 | 3.79100E+00 | | 132.01 | | |
| -45.00 | 100.00 | -1.04 | 7.47 | 8.04 | 0.06715 | -69.72 | |
| RIGHT | 1.73698E+00 | -41.07 | 4.62600E+00 | | 150.65 | | |
| -40.00 | 100.00 | 0.02 | 7.93 | 8.58 | 0.10025 | -68.69 | |
| RIGHT | 1.96324E+00 | -25.97 | 4.87725E+00 | | 170.68 | | |
| -35.00 | 100.00 | -0.49 | 6.76 | 7.51 | 0.15067 | -67.79 | |
| RIGHT | 1.85167E+00 | -10.27 | 4.26324E+00 | | -166.49 | | |
| -30.00 | 100.00 | -3.81 | 2.74 | 3.61 | 0.26914 | -68.77 | |
| RIGHT | 1.26241E+00 | 4.36 | 2.68563E+00 | | -134.96 | | |
| -25.00 | 100.00 | -18.90 | -3.65 | -3.53 | 0.02980 | 80.34 | |
| RIGHT | 2.22195E-01 | -26.54 | 1.28572E+00 | | -36.76 | | |
| -20.00 | 100.00 | -2.46 | 6.02 | 6.59 | 0.09197 | -69.91 | LEFT |
| 1.47549E+00 | -122.00 | 3.91512E+00 | 41.96 | | | | |
| -15.00 | 100.00 | 4.43 | 11.49 | 12.27 | 0.00659 | -66.08 | LEFT |
| 3.26140E+00 | -106.06 | 7.35099E+00 | 72.92 | | | | |
| -10.00 | 100.00 | 7.98 | 14.45 | 15.33 | 0.03397 | -64.64 | |
| RIGHT | 4.90919E+00 | -86.75 | 1.03331E+01 | | 98.27 | | |
| -5.00 | 100.00 | 9.78 | 15.89 | 16.84 | 0.05979 | -63.82 | |
| RIGHT | 6.04004E+00 | -66.50 | 1.21992E+01 | | 122.11 | | |
| 0.00 | 100.00 | 10.25 | 16.13 | 17.13 | 0.07901 | -63.33 | |
| RIGHT | 6.37188E+00 | -45.97 | 1.25392E+01 | | 145.24 | | |
| -90.00 | 105.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.07286E-23 | -103.68 | 8.53342E-12 | 151.51 | | | | |
| -85.00 | 105.00 | -55.41 | -22.71 | -22.71 | 0.02268 | 89.73 | LEFT |
| 3.32067E-03 | -102.82 | 1.43284E-01 | -24.67 | | | | |
| -80.00 | 105.00 | -42.02 | -17.07 | -17.06 | 0.05657 | 89.87 | LEFT |
| 1.55247E-02 | -100.27 | 2.74248E-01 | -12.49 | | | | |
| -75.00 | 105.00 | -33.05 | -13.73 | -13.68 | 0.10399 | -88.31 | LEFT |
| 4.35756E-02 | -96.08 | 4.03174E-01 | 9.57 | | | | |
| -70.00 | 105.00 | -25.89 | -10.32 | -10.20 | 0.12624 | -83.79 | LEFT |
| 9.94573E-02 | -90.31 | 5.96766E-01 | 39.67 | | | | |
| -65.00 | 105.00 | -19.85 | -6.14 | -5.96 | 0.09134 | -79.52 | LEFT |
| 1.99314E-01 | -82.99 | 9.66041E-01 | 69.77 | | | | |
| -60.00 | 105.00 | -14.72 | -1.88 | -1.66 | 0.04084 | -77.35 | LEFT |
| 3.59599E-01 | -74.17 | 1.57698E+00 | 94.98 | | | | |
| -55.00 | 105.00 | -10.44 | 1.78 | 2.04 | 0.00170 | -76.25 | |
| RIGHT | 5.88534E-01 | -63.94 | 2.40457E+00 | | 116.48 | | |
| -50.00 | 105.00 | -7.02 | 4.60 | 4.89 | 0.03759 | -75.44 | |
| RIGHT | 8.72785E-01 | -52.41 | 3.32515E+00 | | 136.38 | | |
| -45.00 | 105.00 | -4.53 | 6.44 | 6.77 | 0.07230 | -74.70 | |
| RIGHT | 1.16285E+00 | -39.80 | 4.10960E+00 | | 156.14 | | |
| -40.00 | 105.00 | -3.13 | 7.12 | 7.51 | 0.11254 | -74.04 | |
| RIGHT | 1.36515E+00 | -26.48 | 4.44497E+00 | | 176.84 | | |
| -35.00 | 105.00 | -3.22 | 6.22 | 6.69 | 0.17214 | -73.81 | |
| RIGHT | 1.35199E+00 | -13.36 | 4.00960E+00 | | -159.84 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -30.00 | 105.00 | -5.82 | 2.58 | 3.17 | 0.30160 | -76.92 | |
| RIGHT | 1.00163E+00 | -3.88 | 2.63718E+00 | | -127.49 | | |
| -25.00 | 105.00 | -14.06 | -2.83 | -2.52 | 0.01348 | 74.67 | LEFT |
| 3.87875E-01 | -36.55 | 1.41362E+00 | -33.53 | | | | |
| -20.00 | 105.00 | -4.68 | 6.21 | 6.55 | 0.12143 | -75.52 | LEFT |
| 1.14263E+00 | -109.45 | 4.00528E+00 | 43.58 | | | | |
| -15.00 | 105.00 | 2.31 | 11.74 | 12.21 | 0.02054 | -71.36 | LEFT |
| 2.55553E+00 | -101.44 | 7.56402E+00 | 74.68 | | | | |
| -10.00 | 105.00 | 6.07 | 14.77 | 15.32 | 0.02754 | -69.88 | |
| RIGHT | 3.93876E+00 | -85.36 | 1.07224E+01 | | 99.52 | | |
| -5.00 | 105.00 | 8.03 | 16.24 | 16.85 | 0.05750 | -68.97 | |
| RIGHT | 4.93819E+00 | -67.19 | 1.27087E+01 | | 122.58 | | |
| 0.00 | 105.00 | 8.61 | 16.47 | 17.13 | 0.07901 | -68.33 | |
| RIGHT | 5.27989E+00 | -48.27 | 1.30367E+01 | | 144.77 | | |
| -90.00 | 110.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.23700E-23 | -86.96 | 8.91210E-12 | -136.39 | | | | |
| -85.00 | 110.00 | -54.64 | -22.11 | -22.11 | 0.01799 | -89.12 | LEFT |
| 3.63181E-03 | -86.33 | 1.53549E-01 | 44.14 | | | | |
| -80.00 | 110.00 | -42.46 | -15.88 | -15.87 | 0.03546 | -88.24 | LEFT |
| 1.47579E-02 | -84.52 | 3.14730E-01 | 46.29 | | | | |
| -75.00 | 110.00 | -35.08 | -11.97 | -11.95 | 0.05074 | -87.25 | LEFT |
| 3.44951E-02 | -81.74 | 4.93768E-01 | 51.54 | | | | |
| -70.00 | 110.00 | -29.44 | -8.86 | -8.82 | 0.06018 | -85.91 | LEFT |
| 6.60302E-02 | -78.18 | 7.06159E-01 | 61.52 | | | | |
| -65.00 | 110.00 | -24.54 | -6.00 | -5.94 | 0.05724 | -84.09 | LEFT |
| 1.16101E-01 | -73.76 | 9.81027E-01 | 76.98 | | | | |
| -60.00 | 110.00 | -20.02 | -3.11 | -3.02 | 0.03623 | -82.14 | LEFT |
| 1.95475E-01 | -68.14 | 1.36954E+00 | 96.86 | | | | |
| -55.00 | 110.00 | -15.84 | -0.16 | -0.05 | 0.00085 | -80.66 | LEFT |
| 3.16176E-01 | -61.00 | 1.92184E+00 | 118.69 | | | | |
| -50.00 | 110.00 | -12.15 | 2.53 | 2.68 | 0.03955 | -79.79 | |
| RIGHT | 4.83335E-01 | -52.27 | 2.62128E+00 | | 140.53 | | |
| -45.00 | 110.00 | -9.16 | 4.59 | 4.77 | 0.08123 | -79.33 | |
| RIGHT | 6.81928E-01 | -42.23 | 3.32362E+00 | | 161.96 | | |
| -40.00 | 110.00 | -7.11 | 5.64 | 5.86 | 0.12844 | -79.17 | |
| RIGHT | 8.63383E-01 | -31.56 | 3.74786E+00 | | -176.27 | | |
| -35.00 | 110.00 | -6.35 | 5.14 | 5.44 | 0.19581 | -79.75 | |
| RIGHT | 9.43073E-01 | -21.62 | 3.53995E+00 | | -152.33 | | |
| -30.00 | 110.00 | -7.48 | 1.96 | 2.43 | 0.32735 | -85.32 | |
| RIGHT | 8.27662E-01 | -16.65 | 2.45368E+00 | | -119.16 | | |
| -25.00 | 110.00 | -10.93 | -2.45 | -1.87 | 0.05123 | 69.53 | LEFT |
| 5.56371E-01 | -36.97 | 1.47694E+00 | -28.06 | | | | |
| -20.00 | 110.00 | -7.12 | 6.24 | 6.44 | 0.14585 | -81.04 | LEFT |
| 8.62719E-01 | -89.54 | 4.01822E+00 | 46.37 | | | | |
| -15.00 | 110.00 | -0.53 | 11.85 | 12.09 | 0.03267 | -76.59 | LEFT |
| 1.84287E+00 | -94.60 | 7.66087E+00 | 77.15 | | | | |
| -10.00 | 110.00 | 3.52 | 14.98 | 15.28 | 0.02190 | -75.09 | |
| RIGHT | 2.93599E+00 | -83.82 | 1.09867E+01 | | 101.21 | | |
| -5.00 | 110.00 | 5.75 | 16.51 | 16.86 | 0.05547 | -74.12 | |
| RIGHT | 3.79785E+00 | -68.67 | 1.31048E+01 | | 123.27 | | |
| 0.00 | 110.00 | 6.55 | 16.73 | 17.13 | 0.07901 | -73.33 | |
| RIGHT | 4.16079E+00 | -51.81 | 1.34358E+01 | | 144.32 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -90.00 | 115.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.00805E-23 | -64.43 | 9.90653E-12 | -100.13 | | | | |
| -85.00 | 115.00 | -56.54 | -21.38 | -21.38 | 0.01066 | -89.21 | LEFT |
| 2.91798E-03 | -63.34 | 1.67012E-01 | 79.04 | | | | |
| -80.00 | 115.00 | -44.76 | -15.65 | -15.65 | 0.02385 | -88.53 | LEFT |
| 1.13252E-02 | -60.29 | 3.23054E-01 | 76.81 | | | | |
| -75.00 | 115.00 | -38.15 | -12.38 | -12.36 | 0.03921 | -88.09 | LEFT |
| 2.42426E-02 | -55.93 | 4.71089E-01 | 74.36 | | | | |
| -70.00 | 115.00 | -33.71 | -9.88 | -9.86 | 0.05200 | -87.83 | LEFT |
| 4.04040E-02 | -51.58 | 6.27942E-01 | 74.40 | | | | |
| -65.00 | 115.00 | -30.35 | -7.67 | -7.64 | 0.05627 | -87.30 | LEFT |
| 5.94886E-02 | -49.34 | 8.10264E-01 | 80.48 | | | | |
| -60.00 | 115.00 | -27.20 | -5.52 | -5.49 | 0.04588 | -86.08 | LEFT |
| 8.55113E-02 | -51.10 | 1.03703E+00 | 94.91 | | | | |
| -55.00 | 115.00 | -23.44 | -3.17 | -3.13 | 0.01322 | -84.52 | LEFT |
| 1.31808E-01 | -55.16 | 1.35989E+00 | 116.93 | | | | |
| -50.00 | 115.00 | -19.06 | -0.52 | -0.46 | 0.03715 | -83.59 | |
| RIGHT | 2.18189E-01 | -56.24 | 1.84510E+00 | 142.31 | | | |
| -45.00 | 115.00 | -14.82 | 1.97 | 2.06 | 0.09062 | -83.56 | |
| RIGHT | 3.55432E-01 | -52.19 | 2.45583E+00 | 167.16 | | | |
| -40.00 | 115.00 | -11.36 | 3.60 | 3.74 | 0.14576 | -84.11 | |
| RIGHT | 5.29506E-01 | -44.62 | 2.96478E+00 | -169.06 | | | |
| -35.00 | 115.00 | -9.04 | 3.70 | 3.92 | 0.21813 | -85.67 | |
| RIGHT | 6.91807E-01 | -36.03 | 2.99689E+00 | -144.21 | | | |
| -30.00 | 115.00 | -8.14 | 1.10 | 1.59 | 0.33925 | 86.44 | |
| RIGHT | 7.66730E-01 | -29.71 | 2.22341E+00 | -110.52 | | | |
| -25.00 | 115.00 | -8.83 | -2.46 | -1.56 | 0.07179 | 64.59 | LEFT |
| 7.08347E-01 | -32.99 | 1.47521E+00 | -22.44 | | | | |
| -20.00 | 115.00 | -8.97 | 6.07 | 6.20 | 0.16639 | -86.53 | LEFT |
| 6.97370E-01 | -59.37 | 3.93841E+00 | 50.06 | | | | |
| -15.00 | 115.00 | -4.61 | 11.82 | 11.92 | 0.04306 | -81.78 | LEFT |
| 1.15174E+00 | -82.78 | 7.63909E+00 | 80.26 | | | | |
| -10.00 | 115.00 | -0.18 | 15.09 | 15.22 | 0.01708 | -80.26 | |
| RIGHT | 1.91881E+00 | -82.54 | 1.11254E+01 | 103.31 | | | |
| -5.00 | 115.00 | 2.59 | 16.69 | 16.86 | 0.05371 | -79.25 | |
| RIGHT | 2.63983E+00 | -72.22 | 1.33843E+01 | 124.16 | | | |
| 0.00 | 115.00 | 3.81 | 16.92 | 17.13 | 0.07901 | -78.33 | |
| RIGHT | 3.03754E+00 | -57.96 | 1.37334E+01 | 143.90 | | | |
| -90.00 | 120.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.28147E-23 | -31.99 | 7.77769E-12 | -72.09 | | | | |
| -85.00 | 120.00 | -54.41 | -23.64 | -23.63 | 0.01987 | -88.79 | LEFT |
| 3.72924E-03 | -30.44 | 1.28835E-01 | 106.19 | | | | |
| -80.00 | 120.00 | -42.51 | -18.32 | -18.30 | 0.04953 | -87.89 | LEFT |
| 1.46627E-02 | -25.93 | 2.37606E-01 | 100.59 | | | | |
| -75.00 | 120.00 | -35.82 | -15.48 | -15.44 | 0.09043 | -88.13 | LEFT |
| 3.16992E-02 | -18.75 | 3.29656E-01 | 90.96 | | | | |
| -70.00 | 120.00 | -31.52 | -13.01 | -12.95 | 0.11870 | -89.97 | LEFT |
| 5.20046E-02 | -9.42 | 4.38104E-01 | 80.86 | | | | |
| -65.00 | 120.00 | -28.94 | -10.48 | -10.42 | 0.11597 | 88.39 | LEFT |
| 6.99318E-02 | 1.09 | 5.85993E-01 | 77.62 | | | | |
| -60.00 | 120.00 | -28.18 | -8.30 | -8.26 | 0.09817 | 88.55 | LEFT |
| 7.63723E-02 | 10.40 | 7.53190E-01 | 86.06 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -55.00 | 120.00 | -30.08 | -6.43 | -6.41 | 0.06493 | -89.43 | LEFT |
| 6.13799E-02 | 8.83 | 9.34281E-01 | 107.56 | | | | |
| -50.00 | 120.00 | -30.68 | -4.07 | -4.06 | 0.00459 | -87.34 | |
| RIGHT | 5.72487E-02 | -46.76 | 1.22522E+00 | | 138.90 | | |
| -45.00 | 120.00 | -21.35 | -1.10 | -1.06 | 0.08609 | -87.42 | |
| RIGHT | 1.67698E-01 | -71.96 | 1.72556E+00 | | 170.62 | | |
| -40.00 | 120.00 | -14.78 | 1.37 | 1.47 | 0.15449 | -88.84 | |
| RIGHT | 3.57078E-01 | -64.61 | 2.29164E+00 | | -161.92 | | |
| -35.00 | 120.00 | -10.53 | 2.24 | 2.46 | 0.22864 | 88.61 | |
| RIGHT | 5.82605E-01 | -51.64 | 2.53403E+00 | | -135.91 | | |
| -30.00 | 120.00 | -8.07 | 0.36 | 0.94 | 0.33202 | 79.58 | |
| RIGHT | 7.73026E-01 | -38.12 | 2.04050E+00 | | -102.64 | | |
| -25.00 | 120.00 | -7.42 | -2.83 | -1.53 | 0.06229 | 59.61 | LEFT |
| 8.33624E-01 | -27.03 | 1.41459E+00 | -18.88 | | | | |
| -20.00 | 120.00 | -8.86 | 5.65 | 5.80 | 0.18449 | 87.92 | LEFT |
| 7.05862E-01 | -24.91 | 3.75402E+00 | 54.34 | | | | |
| -15.00 | 120.00 | -10.88 | 11.66 | 11.69 | 0.05184 | -86.93 | LEFT |
| 5.59841E-01 | -51.91 | 7.49978E+00 | 83.95 | | | | |
| -10.00 | 120.00 | -6.69 | 15.10 | 15.13 | 0.01311 | -85.41 | |
| RIGHT | 9.06086E-01 | -83.55 | 1.11411E+01 | | 105.79 | | |
| -5.00 | 120.00 | -2.26 | 16.80 | 16.85 | 0.05225 | -84.38 | |
| RIGHT | 1.50998E+00 | -83.01 | 1.35460E+01 | | 125.24 | | |
| 0.00 | 120.00 | 0.04 | 17.04 | 17.13 | 0.07901 | -83.33 | |
| RIGHT | 1.96628E+00 | -71.06 | 1.39272E+01 | | 143.50 | | |
| -90.00 | 125.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.31616E-23 | -6.40 | 6.35057E-12 | -31.14 | | | | |
| -85.00 | 125.00 | -49.24 | -25.61 | -25.59 | 0.03056 | -86.66 | LEFT |
| 6.75573E-03 | -5.03 | 1.02614E-01 | 147.20 | | | | |
| -80.00 | 125.00 | -37.29 | -21.05 | -20.95 | 0.09417 | -83.04 | LEFT |
| 2.67539E-02 | -0.99 | 1.73516E-01 | 140.71 | | | | |
| -75.00 | 125.00 | -30.47 | -19.50 | -19.17 | 0.24348 | -81.79 | LEFT |
| 5.86736E-02 | 5.67 | 2.07437E-01 | 124.31 | | | | |
| -70.00 | 125.00 | -25.95 | -17.41 | -16.84 | 0.37013 | 86.86 | LEFT |
| 9.87335E-02 | 14.87 | 2.63925E-01 | 97.60 | | | | |
| -65.00 | 125.00 | -22.99 | -13.61 | -13.13 | 0.26596 | 78.02 | LEFT |
| 1.38831E-01 | 26.56 | 4.08757E-01 | 81.22 | | | | |
| -60.00 | 125.00 | -21.49 | -10.37 | -10.04 | 0.18005 | 78.02 | LEFT |
| 1.65044E-01 | 40.87 | 5.93568E-01 | 83.38 | | | | |
| -55.00 | 125.00 | -21.88 | -8.38 | -8.19 | 0.14031 | 81.01 | LEFT |
| 1.57751E-01 | 58.60 | 7.46228E-01 | 101.45 | | | | |
| -50.00 | 125.00 | -26.18 | -6.60 | -6.56 | 0.07897 | 86.05 | LEFT |
| 9.60964E-02 | 85.95 | 9.15661E-01 | 135.06 | | | | |
| -45.00 | 125.00 | -29.45 | -3.55 | -3.54 | 0.03924 | 88.16 | |
| RIGHT | 6.59995E-02 | -135.21 | 1.30170E+00 | | 174.00 | | |
| -40.00 | 125.00 | -17.00 | -0.33 | -0.24 | 0.13388 | 86.57 | |
| RIGHT | 2.76586E-01 | -88.07 | 1.88548E+00 | | -154.40 | | |
| -35.00 | 125.00 | -11.09 | 1.31 | 1.55 | 0.21210 | 83.61 | |
| RIGHT | 5.46125E-01 | -64.26 | 2.27724E+00 | | -127.77 | | |
| -30.00 | 125.00 | -7.80 | 0.12 | 0.77 | 0.30576 | 75.30 | |
| RIGHT | 7.97815E-01 | -42.58 | 1.98652E+00 | | -96.53 | | |
| -25.00 | 125.00 | -6.47 | -3.40 | -1.66 | 0.00920 | 54.91 | LEFT |
| 9.29862E-01 | -21.01 | 1.32332E+00 | -19.89 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -20.00 | 125.00 | -7.31 | 4.95 | 5.20 | 0.20155 | 82.17 | LEFT |
| 8.44083E-01 | 1.57 | 3.46129E+00 | 58.87 | | | | |
| -15.00 | 125.00 | -11.84 | 11.37 | 11.39 | 0.05916 | 87.95 | LEFT |
| 5.01074E-01 | 29.16 | 7.24878E+00 | 88.13 | | | | |
| -10.00 | 125.00 | -22.23 | 15.02 | 15.02 | 0.01000 | 89.46 | |
| RIGHT | 1.51534E-01 | 155.39 | 1.10394E+01 | | 108.61 | | |
| -5.00 | 125.00 | -8.87 | 16.83 | 16.84 | 0.05110 | -89.49 | |
| RIGHT | 7.05007E-01 | -133.64 | 1.35903E+01 | | 126.48 | | |
| 0.00 | 125.00 | -4.40 | 17.09 | 17.13 | 0.07901 | -88.33 | |
| RIGHT | 1.18065E+00 | -106.73 | 1.40157E+01 | | 143.10 | | |
| -90.00 | 130.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.43629E-23 | 17.05 | 1.00163E-11 | 7.49 | | | | |
| -85.00 | 130.00 | -45.82 | -21.57 | -21.55 | 0.01166 | -86.56 | LEFT |
| 1.00257E-02 | 18.25 | 1.63509E-01 | -172.76 | | | | |
| -80.00 | 130.00 | -33.85 | -16.83 | -16.74 | 0.03782 | -82.27 | LEFT |
| 3.97648E-02 | 21.85 | 2.82169E-01 | -174.02 | | | | |
| -75.00 | 130.00 | -26.98 | -15.67 | -15.36 | 0.11400 | -76.13 | LEFT |
| 8.76668E-02 | 27.85 | 3.22548E-01 | -178.55 | | | | |
| -70.00 | 130.00 | -22.35 | -16.58 | -15.56 | 0.34850 | -68.95 | LEFT |
| 1.49375E-01 | 36.28 | 2.90296E-01 | 166.48 | | | | |
| -65.00 | 130.00 | -19.18 | -16.44 | -14.58 | 0.72348 | 83.73 | LEFT |
| 2.15309E-01 | 47.28 | 2.95154E-01 | 133.18 | | | | |
| -60.00 | 130.00 | -17.26 | -12.84 | -11.50 | 0.40730 | 65.50 | LEFT |
| 2.68418E-01 | 61.23 | 4.46678E-01 | 113.54 | | | | |
| -55.00 | 130.00 | -16.75 | -9.73 | -8.94 | 0.26492 | 70.17 | LEFT |
| 2.84591E-01 | 79.46 | 6.38998E-01 | 121.22 | | | | |
| -50.00 | 130.00 | -18.16 | -7.36 | -7.02 | 0.18294 | 77.41 | LEFT |
| 2.41973E-01 | 106.87 | 8.38798E-01 | 148.53 | | | | |
| -45.00 | 130.00 | -21.06 | -4.16 | -4.07 | 0.04588 | 82.29 | LEFT |
| 1.73345E-01 | 165.66 | 1.21283E+00 | -175.26 | | | | |
| -40.00 | 130.00 | -16.50 | -0.68 | -0.56 | 0.07610 | 81.87 | |
| RIGHT | 2.93176E-01 | -115.83 | 1.81151E+00 | | -144.50 | | |
| -35.00 | 130.00 | -10.72 | 1.36 | 1.62 | 0.16498 | 79.44 | |
| RIGHT | 5.70029E-01 | -76.09 | 2.29090E+00 | | -119.36 | | |
| -30.00 | 130.00 | -7.33 | 0.67 | 1.31 | 0.26073 | 73.20 | |
| RIGHT | 8.41819E-01 | -46.57 | 2.11643E+00 | | -91.88 | | |
| -25.00 | 130.00 | -5.81 | -3.71 | -1.62 | 0.09034 | 51.98 | |
| RIGHT | 1.00331E+00 | -16.72 | 1.27778E+00 | | -27.35 | | |
| -20.00 | 130.00 | -5.71 | 3.90 | 4.35 | 0.21847 | 76.01 | LEFT |
| 1.01528E+00 | 18.87 | 3.06830E+00 | 63.22 | | | | |
| -15.00 | 130.00 | -6.05 | 10.94 | 11.02 | 0.06516 | 82.84 | LEFT |
| 9.75812E-01 | 64.85 | 6.89736E+00 | 92.74 | | | | |
| -10.00 | 130.00 | -5.22 | 14.85 | 14.90 | 0.00777 | 84.35 | |
| RIGHT | 1.07430E+00 | 116.26 | 1.08286E+01 | | 111.73 | | |
| -5.00 | 130.00 | -3.69 | 16.78 | 16.82 | 0.05027 | 85.41 | |
| RIGHT | 1.28066E+00 | 160.15 | 1.35191E+01 | | 127.87 | | |
| 0.00 | 130.00 | -3.09 | 17.08 | 17.13 | 0.07901 | 86.67 | |
| RIGHT | 1.37288E+00 | -163.37 | 1.39982E+01 | | 142.71 | | |
| -90.00 | 135.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.73013E-23 | 43.94 | 1.77214E-11 | 30.33 | | | | |
| -85.00 | 135.00 | -45.07 | -16.49 | -16.48 | 0.00940 | -87.94 | LEFT |
| 1.09216E-02 | 45.08 | 2.93391E-01 | -149.56 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -80.00 | 135.00 | -33.01 | -11.35 | -11.32 | 0.02525 | -85.50 | LEFT |
| 4.37969E-02 | 48.49 | 5.30302E-01 | -149.43 | | | | |
| -75.00 | 135.00 | -25.98 | -9.41 | -9.31 | 0.05958 | -82.26 | LEFT |
| 9.83711E-02 | 54.19 | 6.62974E-01 | -149.95 | | | | |
| -70.00 | 135.00 | -21.12 | -9.32 | -9.04 | 0.14170 | -77.89 | LEFT |
| 1.72128E-01 | 62.23 | 6.69638E-01 | -152.94 | | | | |
| -65.00 | 135.00 | -17.64 | -10.45 | -9.69 | 0.33608 | -74.23 | LEFT |
| 2.57031E-01 | 72.80 | 5.88130E-01 | -162.58 | | | | |
| -60.00 | 135.00 | -15.31 | -10.98 | -9.62 | 0.60619 | -87.76 | LEFT |
| 3.36016E-01 | 86.45 | 5.53308E-01 | 178.79 | | | | |
| -55.00 | 135.00 | -14.17 | -9.13 | -7.95 | 0.46731 | 72.26 | LEFT |
| 3.83292E-01 | 104.70 | 6.84285E-01 | 168.80 | | | | |
| -50.00 | 135.00 | -14.28 | -6.29 | -5.65 | 0.27947 | 74.04 | LEFT |
| 3.78307E-01 | 131.67 | 9.48973E-01 | -179.43 | | | | |
| -45.00 | 135.00 | -14.79 | -2.96 | -2.69 | 0.11624 | 77.13 | LEFT |
| 3.56798E-01 | 176.19 | 1.39225E+00 | -155.33 | | | | |
| -40.00 | 135.00 | -12.54 | 0.31 | 0.53 | 0.01281 | 77.18 | |
| RIGHT | 4.62522E-01 | -127.73 | 2.02882E+00 | -131.12 | | | |
| -35.00 | 135.00 | -8.76 | 2.32 | 2.65 | 0.10755 | 75.55 | |
| RIGHT | 7.14167E-01 | -85.51 | 2.55936E+00 | -109.76 | | | |
| -30.00 | 135.00 | -6.24 | 1.91 | 2.52 | 0.20390 | 71.46 | |
| RIGHT | 9.54800E-01 | -51.75 | 2.43864E+00 | -86.97 | | | |
| -25.00 | 135.00 | -5.21 | -2.98 | -0.94 | 0.19664 | 52.87 | |
| RIGHT | 1.07550E+00 | -15.58 | 1.39001E+00 | -38.61 | | | |
| -20.00 | 135.00 | -4.55 | 2.45 | 3.24 | 0.23438 | 69.08 | LEFT |
| 1.15998E+00 | 30.21 | 2.59716E+00 | 66.84 | | | | |
| -15.00 | 135.00 | -2.46 | 10.37 | 10.59 | 0.06997 | 77.73 | LEFT |
| 1.47582E+00 | 79.03 | 6.46226E+00 | 97.74 | | | | |
| -10.00 | 135.00 | 0.17 | 14.60 | 14.76 | 0.00642 | 79.26 | |
| RIGHT | 1.99721E+00 | 117.12 | 1.05194E+01 | 115.12 | | | |
| -5.00 | 135.00 | 1.66 | 16.66 | 16.80 | 0.04976 | 80.32 | |
| RIGHT | 2.37020E+00 | 146.12 | 1.33357E+01 | 129.37 | | | |
| 0.00 | 135.00 | 1.42 | 17.01 | 17.13 | 0.07901 | 81.67 | |
| RIGHT | 2.30737E+00 | 171.33 | 1.38748E+01 | 142.31 | | | |
| -90.00 | 140.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.93928E-23 | 78.86 | 2.50544E-11 | 50.96 | | | | |
| -85.00 | 140.00 | -47.03 | -13.44 | -13.44 | 0.01007 | -88.95 | LEFT |
| 8.71579E-03 | 79.92 | 4.16869E-01 | -128.89 | | | | |
| -80.00 | 140.00 | -34.66 | -8.15 | -8.14 | 0.02475 | -87.69 | LEFT |
| 3.62078E-02 | 83.08 | 7.66108E-01 | -128.56 | | | | |
| -75.00 | 140.00 | -27.18 | -5.93 | -5.89 | 0.05157 | -86.02 | LEFT |
| 8.57052E-02 | 88.32 | 9.89919E-01 | -128.44 | | | | |
| -70.00 | 140.00 | -21.77 | -5.35 | -5.26 | 0.10595 | -83.86 | LEFT |
| 1.59670E-01 | 95.73 | 1.05733E+00 | -129.47 | | | | |
| -65.00 | 140.00 | -17.70 | -5.91 | -5.63 | 0.21680 | -82.11 | LEFT |
| 2.55166E-01 | 105.61 | 9.92165E-01 | -133.53 | | | | |
| -60.00 | 140.00 | -14.74 | -6.72 | -6.08 | 0.39094 | -85.92 | LEFT |
| 3.58921E-01 | 118.74 | 9.03559E-01 | -142.53 | | | | |
| -55.00 | 140.00 | -12.81 | -6.25 | -5.38 | 0.43477 | 79.71 | LEFT |
| 4.48125E-01 | 136.77 | 9.54151E-01 | -151.37 | | | | |
| -50.00 | 140.00 | -11.70 | -4.10 | -3.40 | 0.29085 | 73.25 | LEFT |
| 5.09453E-01 | 162.79 | 1.22187E+00 | -148.18 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -45.00 | 140.00 | -10.51 | -1.11 | -0.64 | 0.14262 | 72.89 | LEFT |
| 5.84199E-01 | -160.89 | 1.72400E+00 | -133.51 | | | | |
| -40.00 | 140.00 | -8.20 | 1.83 | 2.24 | 0.02676 | 72.56 | LEFT |
| 7.61773E-01 | -121.10 | 2.41680E+00 | -115.74 | | | | |
| -35.00 | 140.00 | -5.65 | 3.69 | 4.17 | 0.06243 | 71.47 | |
| RIGHT | 1.02142E+00 | -86.90 | 2.99585E+00 | | -98.65 | | |
| -30.00 | 140.00 | -4.24 | 3.42 | 4.11 | 0.15156 | 68.89 | |
| RIGHT | 1.20215E+00 | -55.66 | 2.90375E+00 | | -80.44 | | |
| -25.00 | 140.00 | -4.32 | -1.22 | 0.51 | 0.24028 | 56.30 | |
| RIGHT | 1.19073E+00 | -17.77 | 1.70127E+00 | | -46.68 | | |
| -20.00 | 140.00 | -3.87 | 0.54 | 1.88 | 0.24324 | 60.90 | LEFT |
| 1.25464E+00 | 37.52 | 2.08441E+00 | 68.84 | | | | |
| -15.00 | 140.00 | -0.18 | 9.67 | 10.10 | 0.07363 | 72.62 | LEFT |
| 1.91786E+00 | 88.51 | 5.96489E+00 | 103.06 | | | | |
| -10.00 | 140.00 | 3.32 | 14.27 | 14.61 | 0.00594 | 74.17 | |
| RIGHT | 2.87115E+00 | 120.04 | 1.01243E+01 | | 118.74 | | |
| -5.00 | 140.00 | 5.04 | 16.47 | 16.77 | 0.04957 | 75.23 | |
| RIGHT | 3.49850E+00 | 142.38 | 1.30445E+01 | | 130.98 | | |
| 0.00 | 140.00 | 4.81 | 16.86 | 17.13 | 0.07901 | 76.67 | |
| RIGHT | 3.40688E+00 | 161.41 | 1.36465E+01 | | 141.90 | | |
| -90.00 | 145.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.91380E-23 | 128.07 | 2.65301E-11 | 73.08 | | | | |
| -85.00 | 145.00 | -50.52 | -12.94 | -12.94 | 0.01082 | -89.57 | LEFT |
| 5.83260E-03 | 128.16 | 4.41535E-01 | -106.83 | | | | |
| -80.00 | 145.00 | -37.52 | -7.64 | -7.64 | 0.02643 | -88.96 | LEFT |
| 2.60524E-02 | 128.87 | 8.12346E-01 | -106.66 | | | | |
| -75.00 | 145.00 | -29.21 | -5.38 | -5.37 | 0.05443 | -88.03 | LEFT |
| 6.78067E-02 | 131.05 | 1.05352E+00 | -106.80 | | | | |
| -70.00 | 145.00 | -22.96 | -4.73 | -4.67 | 0.10943 | -86.84 | LEFT |
| 1.39217E-01 | 135.53 | 1.13601E+00 | -108.06 | | | | |
| -65.00 | 145.00 | -18.11 | -5.11 | -4.90 | 0.21544 | -86.53 | LEFT |
| 2.43441E-01 | 143.00 | 1.08773E+00 | -112.02 | | | | |
| -60.00 | 145.00 | -14.40 | -5.67 | -5.12 | 0.36431 | 88.16 | LEFT |
| 3.72951E-01 | 154.39 | 1.01984E+00 | -119.97 | | | | |
| -55.00 | 145.00 | -11.65 | -5.04 | -4.18 | 0.38709 | 75.13 | LEFT |
| 5.12119E-01 | 171.13 | 1.09676E+00 | -127.45 | | | | |
| -50.00 | 145.00 | -9.45 | -2.80 | -1.95 | 0.26329 | 68.89 | LEFT |
| 6.59781E-01 | -165.31 | 1.41906E+00 | -125.22 | | | | |
| -45.00 | 145.00 | -7.15 | 0.25 | 0.98 | 0.13923 | 68.01 | LEFT |
| 8.59738E-01 | -136.12 | 2.01559E+00 | -113.88 | | | | |
| -40.00 | 145.00 | -4.57 | 3.15 | 3.82 | 0.04182 | 67.74 | LEFT |
| 1.15726E+00 | -106.77 | 2.81287E+00 | -99.95 | | | | |
| -35.00 | 145.00 | -2.45 | 4.98 | 5.70 | 0.03600 | 67.05 | |
| RIGHT | 1.47668E+00 | -80.66 | 3.47515E+00 | | -86.39 | | |
| -30.00 | 145.00 | -1.69 | 4.85 | 5.72 | 0.11375 | 65.42 | |
| RIGHT | 1.61118E+00 | -55.22 | 3.42271E+00 | | -72.16 | | |
| -25.00 | 145.00 | -2.89 | 0.76 | 2.32 | 0.22253 | 58.00 | |
| RIGHT | 1.40384E+00 | -21.16 | 2.13666E+00 | | -48.68 | | |
| -20.00 | 145.00 | -3.56 | -1.86 | 0.38 | 0.22722 | 51.18 | LEFT |
| 1.29984E+00 | 41.53 | 1.58045E+00 | 67.66 | | | | |
| -15.00 | 145.00 | 1.35 | 8.86 | 9.57 | 0.07608 | 67.48 | LEFT |
| 2.28741E+00 | 96.48 | 5.42962E+00 | 108.68 | | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -10.00 | 145.00 | 5.50 | 13.86 | 14.45 | 0.00633 | 69.09 | |
| RIGHT | 3.68945E+00 | 123.65 | 9.65664E+00 | 122.56 | | | |
| -5.00 | 145.00 | 7.43 | 16.20 | 16.75 | 0.04970 | 70.16 | |
| RIGHT | 4.60766E+00 | 141.54 | 1.26508E+01 | 132.67 | | | |
| 0.00 | 145.00 | 7.29 | 16.65 | 17.13 | 0.07901 | 71.67 | |
| RIGHT | 4.53240E+00 | 156.38 | 1.33151E+01 | 141.47 | | | |
| -90.00 | 150.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.46587E-23 | 159.82 | 1.84754E-11 | 98.06 | | | | |
| -85.00 | 150.00 | -52.60 | -16.14 | -16.14 | 0.01317 | -89.58 | LEFT |
| 4.59221E-03 | 159.12 | 3.05360E-01 | -81.98 | | | | |
| -80.00 | 150.00 | -39.02 | -11.03 | -11.03 | 0.03465 | -88.87 | LEFT |
| 2.19107E-02 | 158.15 | 5.49831E-01 | -82.29 | | | | |
| -75.00 | 150.00 | -30.07 | -9.11 | -9.07 | 0.07916 | -87.61 | LEFT |
| 6.14059E-02 | 158.92 | 6.86305E-01 | -83.49 | | | | |
| -70.00 | 150.00 | -23.28 | -8.92 | -8.77 | 0.17891 | -86.09 | LEFT |
| 1.34282E-01 | 162.62 | 7.01159E-01 | -87.17 | | | | |
| -65.00 | 150.00 | -17.99 | -9.66 | -9.06 | 0.38216 | -88.36 | LEFT |
| 2.46824E-01 | 169.94 | 6.44098E-01 | -96.40 | | | | |
| -60.00 | 150.00 | -13.89 | -9.57 | -8.20 | 0.51962 | 71.56 | LEFT |
| 3.95794E-01 | -178.27 | 6.50625E-01 | -111.13 | | | | |
| -55.00 | 150.00 | -10.63 | -7.19 | -5.57 | 0.35733 | 59.55 | LEFT |
| 5.76205E-01 | -160.95 | 8.55958E-01 | -117.79 | | | | |
| -50.00 | 150.00 | -7.68 | -3.45 | -2.06 | 0.21977 | 59.94 | LEFT |
| 8.08476E-01 | -138.14 | 1.31637E+00 | -110.10 | | | | |
| -45.00 | 150.00 | -4.64 | 0.54 | 1.69 | 0.11938 | 61.68 | LEFT |
| 1.14803E+00 | -113.04 | 2.08439E+00 | -96.87 | | | | |
| -40.00 | 150.00 | -1.73 | 3.89 | 4.94 | 0.04035 | 62.44 | LEFT |
| 1.60428E+00 | -90.01 | 3.06555E+00 | -84.39 | | | | |
| -35.00 | 150.00 | 0.33 | 5.92 | 6.98 | 0.02493 | 62.31 | |
| RIGHT | 2.03451E+00 | -69.98 | 3.87312E+00 | -73.45 | | | |
| -30.00 | 150.00 | 0.84 | 5.98 | 7.14 | 0.09085 | 61.33 | |
| RIGHT | 2.15796E+00 | -50.28 | 3.89757E+00 | -62.56 | | | |
| -25.00 | 150.00 | -1.01 | 2.42 | 4.05 | 0.18981 | 56.93 | |
| RIGHT | 1.74245E+00 | -22.75 | 2.58878E+00 | -46.05 | | | |
| -20.00 | 150.00 | -3.46 | -4.62 | -0.99 | 0.15768 | 40.99 | LEFT |
| 1.31445E+00 | 42.58 | 1.14999E+00 | 60.67 | | | | |
| -15.00 | 150.00 | 2.41 | 7.93 | 9.01 | 0.07716 | 62.33 | LEFT |
| 2.58508E+00 | 103.90 | 4.88155E+00 | 114.59 | | | | |
| -10.00 | 150.00 | 7.13 | 13.37 | 14.30 | 0.00759 | 64.02 | |
| RIGHT | 4.44964E+00 | 127.64 | 9.12974E+00 | 126.53 | | | |
| -5.00 | 150.00 | 9.25 | 15.86 | 16.72 | 0.05014 | 65.09 | |
| RIGHT | 5.67893E+00 | 141.90 | 1.21605E+01 | 134.41 | | | |
| 0.00 | 150.00 | 9.19 | 16.36 | 17.13 | 0.07901 | 66.67 | |
| RIGHT | 5.64445E+00 | 153.35 | 1.28831E+01 | 141.02 | | | |
| -90.00 | 155.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.79006E-23 | 133.30 | 2.24219E-12 | -177.35 | | | | |
| -85.00 | 155.00 | -47.37 | -35.26 | -35.00 | 0.20294 | -81.87 | |
| RIGHT | 8.38476E-03 | 135.25 | 3.38017E-02 | 11.77 | | | |
| -80.00 | 155.00 | -34.69 | -31.06 | -29.50 | 0.65836 | -88.31 | |
| RIGHT | 3.61062E-02 | 140.67 | 5.47978E-02 | 49.21 | | | |
| -75.00 | 155.00 | -26.80 | -24.42 | -22.44 | 0.44456 | 56.73 | |
| RIGHT | 8.95398E-02 | 148.72 | 1.17677E-01 | 98.34 | | | |

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|-------------|-------------|-------------|-------------|---------|---------|-------|------|
| -70.00 | 155.00 | -21.00 | -17.75 | -16.07 | 0.30282 | 57.76 | |
| RIGHT | 1.74458E-01 | 159.05 | 2.53882E-01 | | 122.59 | | |
| -65.00 | 155.00 | -16.59 | -13.56 | -11.81 | 0.28444 | 56.60 | |
| RIGHT | 2.90002E-01 | 172.28 | 4.10931E-01 | | 138.32 | | |
| -60.00 | 155.00 | -13.18 | -11.75 | -9.40 | 0.28411 | 50.52 | |
| RIGHT | 4.29517E-01 | -169.92 | 5.06251E-01 | | 157.88 | | |
| -55.00 | 155.00 | -10.20 | -11.19 | -7.66 | 0.15168 | 41.57 | |
| RIGHT | 6.05245E-01 | -145.86 | 5.39755E-01 | | -163.22 | | |
| -50.00 | 155.00 | -6.84 | -6.71 | -3.77 | 0.06239 | 45.42 | LEFT |
| 8.90988E-01 | -117.69 | 9.04166E-01 | -110.55 | | | | |
| -45.00 | 155.00 | -3.03 | -0.49 | 1.43 | 0.07823 | 53.38 | LEFT |
| 1.38096E+00 | -92.24 | 1.85099E+00 | -82.91 | | | | |
| -40.00 | 155.00 | 0.36 | 3.95 | 5.52 | 0.02732 | 56.54 | LEFT |
| 2.04052E+00 | -72.64 | 3.08547E+00 | -69.23 | | | | |
| -35.00 | 155.00 | 2.58 | 6.42 | 7.92 | 0.02474 | 57.28 | |
| RIGHT | 2.63559E+00 | -57.06 | 4.10022E+00 | | -60.17 | | |
| -30.00 | 155.00 | 3.08 | 6.72 | 8.28 | 0.07959 | 56.85 | |
| RIGHT | 2.79026E+00 | -42.20 | 4.24630E+00 | | -52.12 | | |
| -25.00 | 155.00 | 0.96 | 3.62 | 5.50 | 0.16367 | 54.13 | |
| RIGHT | 2.18700E+00 | -21.17 | 2.97010E+00 | | -40.67 | | |
| -20.00 | 155.00 | -3.38 | -7.06 | -1.83 | 0.03180 | 33.18 | LEFT |
| 1.32721E+00 | 41.32 | 8.68675E-01 | 45.29 | | | | |
| -15.00 | 155.00 | 3.17 | 6.92 | 8.45 | 0.07654 | 57.16 | LEFT |
| 2.81990E+00 | 111.17 | 4.34401E+00 | 120.77 | | | | |
| -10.00 | 155.00 | 8.40 | 12.81 | 14.15 | 0.00970 | 58.95 | |
| RIGHT | 5.15232E+00 | 131.87 | 8.55616E+00 | | 130.62 | | |
| -5.00 | 155.00 | 10.69 | 15.44 | 16.69 | 0.05088 | 60.03 | |
| RIGHT | 6.70147E+00 | 142.89 | 1.15802E+01 | | 136.17 | | |
| 0.00 | 155.00 | 10.71 | 16.00 | 17.13 | 0.07901 | 61.67 | |
| RIGHT | 6.72417E+00 | 151.31 | 1.23539E+01 | | 140.53 | | |
| -90.00 | 160.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 7.89233E-23 | 142.28 | 2.22792E-11 | -46.14 | | | | |
| -85.00 | 160.00 | -38.58 | -14.17 | -14.16 | 0.00934 | 86.59 | |
| RIGHT | 2.30731E-02 | 143.25 | 3.83091E-01 | | 134.30 | | |
| -80.00 | 160.00 | -26.57 | -8.04 | -7.98 | 0.02147 | 83.35 | |
| RIGHT | 9.19295E-02 | 146.14 | 7.75670E-01 | | 135.56 | | |
| -75.00 | 160.00 | -19.68 | -4.47 | -4.34 | 0.03902 | 80.40 | |
| RIGHT | 2.03177E-01 | 150.94 | 1.17053E+00 | | 137.57 | | |
| -70.00 | 160.00 | -15.11 | -2.16 | -1.94 | 0.06505 | 77.83 | |
| RIGHT | 3.43953E-01 | 157.92 | 1.52750E+00 | | 140.32 | | |
| -65.00 | 160.00 | -12.13 | -0.92 | -0.60 | 0.10522 | 75.74 | |
| RIGHT | 4.84638E-01 | 168.06 | 1.76193E+00 | | 144.05 | | |
| -60.00 | 160.00 | -10.52 | -0.98 | -0.52 | 0.17559 | 74.14 | |
| RIGHT | 5.83501E-01 | -175.73 | 1.74902E+00 | | 149.70 | | |
| -55.00 | 160.00 | -9.66 | -3.12 | -2.25 | 0.33775 | 71.60 | |
| RIGHT | 6.44319E-01 | -146.90 | 1.36787E+00 | | 161.25 | | |
| -50.00 | 160.00 | -7.06 | -8.39 | -4.66 | 0.44924 | 38.41 | |
| RIGHT | 8.68522E-01 | -105.24 | 7.45576E-01 | | -154.38 | | |
| -45.00 | 160.00 | -2.32 | -3.07 | 0.33 | 0.00897 | 42.54 | |
| RIGHT | 1.49861E+00 | -73.38 | 1.37495E+00 | | -74.41 | | |
| -40.00 | 160.00 | 1.79 | 3.32 | 5.63 | 0.00445 | 50.01 | LEFT |
| 2.40653E+00 | -55.13 | 2.86856E+00 | -54.62 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|-------|------|
| -35.00 | 160.00 | 4.32 | 6.46 | 8.53 | 0.03217 | 52.01 | |
| RIGHT | 3.21874E+00 | -42.99 | 4.11956E+00 | -46.79 | | | |
| -30.00 | 160.00 | 4.91 | 7.07 | 9.13 | 0.07674 | 52.13 | |
| RIGHT | 3.44618E+00 | -32.20 | 4.41723E+00 | -41.25 | | | |
| -25.00 | 160.00 | 2.75 | 4.32 | 6.62 | 0.14729 | 50.40 | |
| RIGHT | 2.68670E+00 | -16.74 | 3.22138E+00 | -33.78 | | | |
| -20.00 | 160.00 | -3.16 | -8.06 | -1.94 | 0.10055 | 29.30 | |
| RIGHT | 1.36092E+00 | 39.08 | 7.74698E-01 | 25.69 | | | |
| -15.00 | 160.00 | 3.72 | 5.84 | 7.92 | 0.07382 | 51.99 | LEFT |
| 3.00692E+00 | 118.53 | 3.83620E+00 | 127.23 | | | | |
| -10.00 | 160.00 | 9.43 | 12.17 | 14.02 | 0.01264 | 53.88 | |
| RIGHT | 5.80051E+00 | 136.28 | 7.94672E+00 | 134.76 | | | |
| -5.00 | 160.00 | 11.86 | 14.92 | 16.67 | 0.05191 | 54.97 | |
| RIGHT | 7.66731E+00 | 144.24 | 1.09166E+01 | 137.92 | | | |
| 0.00 | 160.00 | 11.96 | 15.55 | 17.13 | 0.07901 | 56.67 | |
| RIGHT | 7.75891E+00 | 149.82 | 1.17317E+01 | 139.99 | | | |
| -90.00 | 165.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.56213E-22 | 164.37 | 4.50787E-11 | -19.34 | | | | |
| -85.00 | 165.00 | -32.69 | -8.12 | -8.10 | 0.00416 | 86.63 | |
| RIGHT | 4.54369E-02 | 164.81 | 7.69088E-01 | 160.76 | | | |
| -80.00 | 165.00 | -20.81 | -2.18 | -2.12 | 0.01025 | 83.35 | |
| RIGHT | 1.78346E-01 | 166.16 | 1.52341E+00 | 161.07 | | | |
| -75.00 | 165.00 | -14.13 | 1.12 | 1.25 | 0.02005 | 80.26 | |
| RIGHT | 3.84804E-01 | 168.45 | 2.22773E+00 | 161.59 | | | |
| -70.00 | 165.00 | -9.84 | 3.13 | 3.35 | 0.03543 | 77.50 | |
| RIGHT | 6.30475E-01 | 171.90 | 2.80939E+00 | 162.36 | | | |
| -65.00 | 165.00 | -7.25 | 4.13 | 4.44 | 0.05931 | 75.26 | |
| RIGHT | 8.49636E-01 | 177.14 | 3.15092E+00 | 163.54 | | | |
| -60.00 | 165.00 | -6.32 | 4.00 | 4.38 | 0.09922 | 73.91 | |
| RIGHT | 9.46222E-01 | -173.84 | 3.10245E+00 | 165.54 | | | |
| -55.00 | 165.00 | -7.29 | 2.21 | 2.67 | 0.18416 | 74.35 | |
| RIGHT | 8.45889E-01 | -153.92 | 2.52674E+00 | 169.80 | | | |
| -50.00 | 165.00 | -7.92 | -2.86 | -1.68 | 0.51267 | 76.95 | |
| RIGHT | 7.87123E-01 | -103.15 | 1.40876E+00 | -175.59 | | | |
| -45.00 | 165.00 | -2.41 | -7.16 | -1.16 | 0.18108 | 28.96 | |
| RIGHT | 1.48303E+00 | -55.87 | 8.59260E-01 | -79.71 | | | |
| -40.00 | 165.00 | 2.69 | 2.07 | 5.40 | 0.02710 | 42.94 | |
| RIGHT | 2.66949E+00 | -37.54 | 2.48474E+00 | -40.65 | | | |
| -35.00 | 165.00 | 5.61 | 6.08 | 8.86 | 0.04505 | 46.58 | |
| RIGHT | 3.73459E+00 | -28.34 | 3.94578E+00 | -33.51 | | | |
| -30.00 | 165.00 | 6.34 | 7.02 | 9.70 | 0.07988 | 47.25 | |
| RIGHT | 4.06508E+00 | -21.10 | 4.39310E+00 | -30.26 | | | |
| -25.00 | 165.00 | 4.21 | 4.56 | 7.40 | 0.13912 | 46.20 | |
| RIGHT | 3.18060E+00 | -10.31 | 3.31119E+00 | -26.17 | | | |
| -20.00 | 165.00 | -2.82 | -7.87 | -1.64 | 0.19269 | 27.84 | |
| RIGHT | 1.41560E+00 | 37.57 | 7.91733E-01 | 11.71 | | | |
| -15.00 | 165.00 | 4.17 | 4.72 | 7.46 | 0.06855 | 46.82 | LEFT |
| 3.16527E+00 | 126.11 | 3.37128E+00 | 133.97 | | | | |
| -10.00 | 165.00 | 10.28 | 11.44 | 13.91 | 0.01636 | 48.80 | |
| RIGHT | 6.39888E+00 | 140.80 | 7.30992E+00 | 138.91 | | | |
| -5.00 | 165.00 | 12.82 | 14.31 | 16.64 | 0.05320 | 49.93 | |
| RIGHT | 8.57007E+00 | 145.80 | 1.01765E+01 | 139.62 | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|-------|------|
| 0.00 | 165.00 | 12.99 | 15.01 | 17.13 | 0.07901 | 51.67 | |
| RIGHT | 8.73862E+00 | 148.68 | 1.10213E+01 | | 139.39 | | |
| -90.00 | 170.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.42672E-22 | -171.30 | 6.23185E-11 | 5.35 | | | | |
| -85.00 | 170.00 | -28.88 | -5.32 | -5.30 | 0.00413 | 86.21 | |
| RIGHT | 7.04817E-02 | -171.13 | 1.06101E+00 | | -174.71 | | |
| -80.00 | 170.00 | -17.04 | 0.56 | 0.64 | 0.00957 | 82.51 | |
| RIGHT | 2.75497E-01 | -170.65 | 2.08949E+00 | | -174.89 | | |
| -75.00 | 170.00 | -10.41 | 3.79 | 3.95 | 0.01754 | 79.01 | |
| RIGHT | 5.90654E-01 | -169.81 | 3.02962E+00 | | -175.16 | | |
| -70.00 | 170.00 | -6.19 | 5.72 | 5.99 | 0.02919 | 75.85 | |
| RIGHT | 9.60432E-01 | -168.47 | 3.78499E+00 | | -175.50 | | |
| -65.00 | 170.00 | -3.66 | 6.66 | 7.04 | 0.04625 | 73.24 | |
| RIGHT | 1.28430E+00 | -166.26 | 4.21499E+00 | | -175.79 | | |
| -60.00 | 170.00 | -2.81 | 6.53 | 7.01 | 0.07291 | 71.57 | |
| RIGHT | 1.41677E+00 | -162.04 | 4.15464E+00 | | -175.78 | | |
| -55.00 | 170.00 | -4.18 | 4.96 | 5.46 | 0.12449 | 71.91 | |
| RIGHT | 1.21056E+00 | -151.47 | 3.46625E+00 | | -174.67 | | |
| -50.00 | 170.00 | -8.16 | 0.73 | 1.25 | 0.29754 | 78.55 | |
| RIGHT | 7.65062E-01 | -109.68 | 2.12945E+00 | | -168.88 | | |
| -45.00 | 170.00 | -3.12 | -9.55 | -2.23 | 0.43342 | 11.51 | |
| RIGHT | 1.36687E+00 | -38.70 | 6.52058E-01 | | -108.57 | | |
| -40.00 | 170.00 | 3.21 | 0.36 | 5.03 | 0.06374 | 35.68 | |
| RIGHT | 2.83430E+00 | -19.73 | 2.04132E+00 | | -27.42 | | |
| -35.00 | 170.00 | 6.53 | 5.36 | 8.99 | 0.06166 | 41.10 | |
| RIGHT | 4.15414E+00 | -13.41 | 3.62811E+00 | | -20.53 | | |
| -30.00 | 170.00 | 7.41 | 6.60 | 10.03 | 0.08731 | 42.30 | |
| RIGHT | 4.59468E+00 | -9.42 | 4.18616E+00 | | -19.44 | | |
| -25.00 | 170.00 | 5.31 | 4.36 | 7.87 | 0.13721 | 41.74 | |
| RIGHT | 3.60937E+00 | -2.63 | 3.23355E+00 | | -18.36 | | |
| -20.00 | 170.00 | -2.52 | -7.70 | -1.37 | 0.24355 | 26.50 | |
| RIGHT | 1.46557E+00 | 38.04 | 8.07181E-01 | | 5.08 | | |
| -15.00 | 170.00 | 4.57 | 3.57 | 7.11 | 0.06039 | 41.68 | LEFT |
| 3.31608E+00 | 133.99 | 2.95524E+00 | 140.95 | | | | |
| -10.00 | 170.00 | 11.01 | 10.62 | 13.83 | 0.02081 | 43.73 | |
| RIGHT | 6.95281E+00 | 145.37 | 6.65152E+00 | | 142.99 | | |
| -5.00 | 170.00 | 13.63 | 13.59 | 16.62 | 0.05472 | 44.89 | |
| RIGHT | 9.40434E+00 | 147.50 | 9.36692E+00 | | 141.24 | | |
| 0.00 | 170.00 | 13.86 | 14.36 | 17.13 | 0.07901 | 46.67 | |
| RIGHT | 9.65461E+00 | 147.76 | 1.02285E+01 | | 138.71 | | |
| -90.00 | 175.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.17263E-22 | -146.70 | 7.04366E-11 | 29.11 | | | | |
| -85.00 | 175.00 | -26.55 | -4.27 | -4.24 | 0.00577 | 85.62 | |
| RIGHT | 9.20857E-02 | -146.74 | 1.19833E+00 | | -151.08 | | |
| -80.00 | 175.00 | -14.73 | 1.60 | 1.70 | 0.01239 | 81.35 | |
| RIGHT | 3.59293E-01 | -146.87 | 2.35473E+00 | | -151.63 | | |
| -75.00 | 175.00 | -8.13 | 4.80 | 5.02 | 0.02060 | 77.33 | |
| RIGHT | 7.68255E-01 | -147.04 | 3.40312E+00 | | -152.54 | | |
| -70.00 | 175.00 | -3.93 | 6.70 | 7.06 | 0.03107 | 73.70 | |
| RIGHT | 1.24556E+00 | -147.17 | 4.23638E+00 | | -153.75 | | |
| -65.00 | 175.00 | -1.43 | 7.61 | 8.13 | 0.04480 | 70.69 | |
| RIGHT | 1.66196E+00 | -147.00 | 4.70560E+00 | | -155.19 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -60.00 | 175.00 | -0.57 | 7.50 | 8.13 | 0.06435 | 68.71 | |
| RIGHT | 1.83336E+00 | -145.83 | 4.64413E+00 | -156.64 | | | |
| -55.00 | 175.00 | -1.96 | 6.03 | 6.67 | 0.09917 | 68.87 | |
| RIGHT | 1.56358E+00 | -140.96 | 3.92213E+00 | -157.54 | | | |
| -50.00 | 175.00 | -7.51 | 2.22 | 2.66 | 0.20683 | 75.81 | |
| RIGHT | 8.25130E-01 | -113.37 | 2.52940E+00 | -155.64 | | | |
| -45.00 | 175.00 | -4.12 | -8.09 | -2.66 | 0.58678 | -14.39 | |
| RIGHT | 1.21873E+00 | -19.84 | 7.71791E-01 | -124.89 | | | |
| -40.00 | 175.00 | 3.52 | -1.55 | 4.70 | 0.09857 | 28.81 | |
| RIGHT | 2.93712E+00 | -1.60 | 1.63882E+00 | -14.87 | | | |
| -35.00 | 175.00 | 7.16 | 4.34 | 8.99 | 0.08047 | 35.72 | |
| RIGHT | 4.46744E+00 | 1.58 | 3.22681E+00 | -8.12 | | | |
| -30.00 | 175.00 | 8.13 | 5.82 | 10.14 | 0.09784 | 37.33 | |
| RIGHT | 4.99393E+00 | 2.46 | 3.82849E+00 | -9.11 | | | |
| -25.00 | 175.00 | 6.03 | 3.72 | 8.04 | 0.14007 | 37.15 | |
| RIGHT | 3.92125E+00 | 5.74 | 3.00399E+00 | -10.79 | | | |
| -20.00 | 175.00 | -2.48 | -8.14 | -1.44 | 0.27395 | 24.12 | |
| RIGHT | 1.47232E+00 | 41.01 | 7.66981E-01 | 2.55 | | | |
| -15.00 | 175.00 | 4.99 | 2.42 | 6.90 | 0.04922 | 36.58 | LEFT |
| 3.48028E+00 | 142.18 | 2.58642E+00 | 148.06 | | | | |
| -10.00 | 175.00 | 11.63 | 9.69 | 13.77 | 0.02591 | 38.65 | |
| RIGHT | 7.46733E+00 | 149.96 | 5.97460E+00 | 146.92 | | | |
| -5.00 | 175.00 | 14.30 | 12.75 | 16.60 | 0.05646 | 39.85 | |
| RIGHT | 1.01654E+01 | 149.27 | 8.49482E+00 | 142.70 | | | |
| 0.00 | 175.00 | 14.59 | 13.59 | 17.13 | 0.07901 | 41.67 | |
| RIGHT | 1.04992E+01 | 146.99 | 9.35953E+00 | 137.90 | | | |
| -90.00 | 180.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.59437E-22 | -122.53 | 6.83691E-11 | 51.86 | | | | |
| -85.00 | 180.00 | -25.47 | -4.53 | -4.49 | 0.00883 | 84.90 | |
| RIGHT | 1.04271E-01 | -122.74 | 1.16267E+00 | -128.44 | | | |
| -80.00 | 180.00 | -13.66 | 1.33 | 1.46 | 0.01797 | 79.96 | |
| RIGHT | 4.06241E-01 | -123.36 | 2.28211E+00 | -129.34 | | | |
| -75.00 | 180.00 | -7.08 | 4.51 | 4.80 | 0.02764 | 75.33 | |
| RIGHT | 8.66639E-01 | -124.37 | 3.29257E+00 | -130.81 | | | |
| -70.00 | 180.00 | -2.91 | 6.40 | 6.88 | 0.03806 | 71.20 | |
| RIGHT | 1.40092E+00 | -125.68 | 4.09077E+00 | -132.80 | | | |
| -65.00 | 180.00 | -0.43 | 7.30 | 7.97 | 0.04969 | 67.82 | |
| RIGHT | 1.86290E+00 | -127.11 | 4.53649E+00 | -135.22 | | | |
| -60.00 | 180.00 | 0.38 | 7.18 | 8.01 | 0.06410 | 65.63 | |
| RIGHT | 2.04685E+00 | -128.15 | 4.47673E+00 | -137.87 | | | |
| -55.00 | 180.00 | -1.07 | 5.75 | 6.57 | 0.08761 | 65.88 | |
| RIGHT | 1.73123E+00 | -126.95 | 3.79700E+00 | -140.27 | | | |
| -50.00 | 180.00 | -7.53 | 2.10 | 2.55 | 0.16106 | 73.91 | |
| RIGHT | 8.23334E-01 | -108.70 | 2.49509E+00 | -140.54 | | | |
| -45.00 | 180.00 | -4.82 | -7.59 | -2.98 | 0.49437 | -29.72 | |
| RIGHT | 1.12419E+00 | 3.41 | 8.17115E-01 | -119.94 | | | |
| -40.00 | 180.00 | 3.77 | -3.31 | 4.55 | 0.12547 | 23.01 | |
| RIGHT | 3.02417E+00 | 16.72 | 1.33744E+00 | -2.79 | | | |
| -35.00 | 180.00 | 7.56 | 3.08 | 8.88 | 0.10030 | 30.55 | |
| RIGHT | 4.67372E+00 | 16.39 | 2.79305E+00 | 3.36 | | | |
| -30.00 | 180.00 | 8.54 | 4.69 | 10.04 | 0.11063 | 32.40 | |
| RIGHT | 5.23222E+00 | 14.28 | 3.36194E+00 | 0.37 | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -25.00 | 180.00 | 6.37 | 2.64 | 7.90 | 0.14669 | 32.52 | |
| RIGHT | 4.07550E+00 | 14.41 | 2.65456E+00 | -3.89 | | | |
| -20.00 | 180.00 | -2.91 | -9.36 | -2.03 | 0.30171 | 20.41 | |
| RIGHT | 1.40036E+00 | 46.67 | 6.66733E-01 | 1.23 | | | |
| -15.00 | 180.00 | 5.47 | 1.23 | 6.86 | 0.03526 | 31.50 | LEFT |
| 3.67616E+00 | 150.60 | 2.25592E+00 | 155.13 | | | | |
| -10.00 | 180.00 | 12.17 | 8.61 | 13.75 | 0.03155 | 33.58 | |
| RIGHT | 7.94622E+00 | 154.50 | 5.27981E+00 | 150.58 | | | |
| -5.00 | 180.00 | 14.87 | 11.74 | 16.59 | 0.05839 | 34.82 | |
| RIGHT | 1.08490E+01 | 151.06 | 7.56734E+00 | 143.94 | | | |
| 0.00 | 180.00 | 15.20 | 12.67 | 17.13 | 0.07901 | 36.67 | |
| RIGHT | 1.12654E+01 | 146.34 | 8.42160E+00 | 136.91 | | | |
| -90.00 | 185.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.53803E-22 | -99.26 | 5.73985E-11 | 73.15 | | | | |
| -85.00 | 185.00 | -25.62 | -6.05 | -6.00 | 0.01383 | 84.05 | |
| RIGHT | 1.02585E-01 | -99.62 | 9.75903E-01 | -107.26 | | | |
| -80.00 | 185.00 | -13.82 | -0.20 | -0.01 | 0.02706 | 78.32 | |
| RIGHT | 3.99009E-01 | -100.69 | 1.91433E+00 | -108.47 | | | |
| -75.00 | 185.00 | -7.26 | 2.98 | 3.37 | 0.03918 | 73.03 | |
| RIGHT | 8.48801E-01 | -102.44 | 2.75929E+00 | -110.44 | | | |
| -70.00 | 185.00 | -3.13 | 4.85 | 5.49 | 0.04989 | 68.40 | |
| RIGHT | 1.36619E+00 | -104.81 | 3.42397E+00 | -113.12 | | | |
| -65.00 | 185.00 | -0.71 | 5.74 | 6.63 | 0.05921 | 64.71 | |
| RIGHT | 1.80453E+00 | -107.65 | 3.79150E+00 | -116.39 | | | |
| -60.00 | 185.00 | 0.00 | 5.61 | 6.66 | 0.06797 | 62.51 | |
| RIGHT | 1.95853E+00 | -110.57 | 3.73520E+00 | -120.03 | | | |
| -55.00 | 185.00 | -1.73 | 4.16 | 5.16 | 0.07995 | 63.34 | |
| RIGHT | 1.60554E+00 | -112.16 | 3.16123E+00 | -123.51 | | | |
| -50.00 | 185.00 | -9.89 | 0.48 | 0.86 | 0.12660 | 74.59 | |
| RIGHT | 6.27372E-01 | -98.16 | 2.06999E+00 | -124.84 | | | |
| -45.00 | 185.00 | -4.47 | -9.22 | -3.22 | 0.34392 | -25.41 | |
| RIGHT | 1.16999E+00 | 30.96 | 6.77273E-01 | -103.86 | | | |
| -40.00 | 185.00 | 4.06 | -4.65 | 4.60 | 0.14470 | 18.66 | |
| RIGHT | 3.12400E+00 | 34.81 | 1.14612E+00 | 8.82 | | | |
| -35.00 | 185.00 | 7.73 | 1.62 | 8.68 | 0.12048 | 25.68 | |
| RIGHT | 4.76852E+00 | 30.76 | 2.35970E+00 | 13.38 | | | |
| -30.00 | 185.00 | 8.63 | 3.20 | 9.72 | 0.12511 | 27.56 | |
| RIGHT | 5.28699E+00 | 25.77 | 2.83147E+00 | 8.55 | | | |
| -25.00 | 185.00 | 6.30 | 1.12 | 7.45 | 0.15650 | 27.94 | |
| RIGHT | 4.04486E+00 | 23.05 | 2.22873E+00 | 1.87 | | | |
| -20.00 | 185.00 | -4.05 | -11.38 | -3.31 | 0.33884 | 14.98 | |
| RIGHT | 1.22880E+00 | 55.64 | 5.28436E-01 | -1.23 | | | |
| -15.00 | 185.00 | 6.02 | -0.04 | 6.98 | 0.01913 | 26.44 | LEFT |
| 3.91670E+00 | 159.07 | 1.94878E+00 | 161.82 | | | | |
| -10.00 | 185.00 | 12.64 | 7.35 | 13.77 | 0.03762 | 28.50 | |
| RIGHT | 8.39116E+00 | 158.94 | 4.56619E+00 | 153.81 | | | |
| -5.00 | 185.00 | 15.34 | 10.54 | 16.58 | 0.06047 | 29.80 | |
| RIGHT | 1.14512E+01 | 152.84 | 6.59194E+00 | 144.83 | | | |
| 0.00 | 185.00 | 15.71 | 11.57 | 17.13 | 0.07901 | 31.67 | |
| RIGHT | 1.19473E+01 | 145.76 | 7.42269E+00 | 135.67 | | | |
| -90.00 | 190.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.94633E-22 | -77.45 | 4.06743E-11 | 92.03 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -85.00 | 190.00 | -27.21 | -9.04 | -8.97 | 0.02219 | 83.08 | |
| RIGHT | 8.53859E-02 | -77.96 | 6.91649E-01 | -88.47 | | | |
| -80.00 | 190.00 | -15.43 | -3.18 | -2.93 | 0.04192 | 76.47 | |
| RIGHT | 3.31581E-01 | -79.48 | 1.35727E+00 | -89.94 | | | |
| -75.00 | 190.00 | -8.90 | 0.00 | 0.52 | 0.05737 | 70.47 | |
| RIGHT | 7.03144E-01 | -81.99 | 1.95735E+00 | -92.34 | | | |
| -70.00 | 190.00 | -4.81 | 1.87 | 2.72 | 0.06758 | 65.38 | |
| RIGHT | 1.12510E+00 | -85.41 | 2.42959E+00 | -95.57 | | | |
| -65.00 | 190.00 | -2.50 | 2.75 | 3.89 | 0.07227 | 61.55 | |
| RIGHT | 1.46882E+00 | -89.64 | 2.68884E+00 | -99.48 | | | |
| -60.00 | 190.00 | -2.02 | 2.60 | 3.89 | 0.07116 | 59.71 | |
| RIGHT | 1.55248E+00 | -94.45 | 2.64108E+00 | -103.78 | | | |
| -55.00 | 190.00 | -4.44 | 1.07 | 2.14 | 0.06345 | 62.22 | |
| RIGHT | 1.17458E+00 | -98.96 | 2.21460E+00 | -107.74 | | | |
| -50.00 | 190.00 | -19.33 | -2.86 | -2.76 | 0.06794 | 82.38 | |
| RIGHT | 2.11433E-01 | -81.03 | 1.40870E+00 | -108.47 | | | |
| -45.00 | 190.00 | -3.00 | -12.85 | -2.57 | 0.23353 | -12.51 | |
| RIGHT | 1.38648E+00 | 57.51 | 4.45986E-01 | -73.05 | | | |
| -40.00 | 190.00 | 4.33 | -5.54 | 4.76 | 0.16159 | 15.50 | |
| RIGHT | 3.22523E+00 | 52.03 | 1.03430E+00 | 19.24 | | | |
| -35.00 | 190.00 | 7.67 | -0.06 | 8.35 | 0.14092 | 21.13 | |
| RIGHT | 4.73518E+00 | 44.41 | 1.94455E+00 | 21.26 | | | |
| -30.00 | 190.00 | 8.39 | 1.33 | 9.17 | 0.14093 | 22.87 | |
| RIGHT | 5.14295E+00 | 36.68 | 2.28270E+00 | 14.80 | | | |
| -25.00 | 190.00 | 5.80 | -0.85 | 6.65 | 0.16932 | 23.50 | |
| RIGHT | 3.81768E+00 | 31.38 | 1.77643E+00 | 5.89 | | | |
| -20.00 | 190.00 | -6.16 | -14.08 | -5.51 | 0.38875 | 5.83 | |
| RIGHT | 9.63499E-01 | 70.41 | 3.86972E-01 | -7.14 | | | |
| -15.00 | 190.00 | 6.64 | -1.51 | 7.26 | 0.00175 | 21.37 | LEFT |
| 4.20721E+00 | 167.39 | 1.64629E+00 | 167.68 | | | | |
| -10.00 | 190.00 | 13.05 | 5.83 | 13.81 | 0.04397 | 23.43 | |
| RIGHT | 8.80118E+00 | 163.23 | 3.83230E+00 | 156.35 | | | |
| -5.00 | 190.00 | 15.72 | 9.09 | 16.58 | 0.06267 | 24.79 | |
| RIGHT | 1.19683E+01 | 154.58 | 5.57685E+00 | 145.19 | | | |
| 0.00 | 190.00 | 16.13 | 10.25 | 17.13 | 0.07901 | 26.67 | |
| RIGHT | 1.25392E+01 | 145.24 | 6.37188E+00 | 134.03 | | | |
| -90.00 | 195.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.89660E-22 | -58.59 | 2.24897E-11 | 105.73 | | | | |
| -85.00 | 195.00 | -31.03 | -14.18 | -14.09 | 0.03771 | 82.11 | |
| RIGHT | 5.49743E-02 | -59.28 | 3.82920E-01 | -74.80 | | | |
| -80.00 | 195.00 | -19.25 | -8.29 | -7.95 | 0.06840 | 74.64 | |
| RIGHT | 2.13529E-01 | -61.33 | 7.54204E-01 | -76.39 | | | |
| -75.00 | 195.00 | -12.73 | -5.06 | -4.38 | 0.08741 | 67.98 | |
| RIGHT | 4.52174E-01 | -64.72 | 1.09330E+00 | -78.94 | | | |
| -70.00 | 195.00 | -8.71 | -3.14 | -2.08 | 0.09292 | 62.56 | |
| RIGHT | 7.18714E-01 | -69.42 | 1.36412E+00 | -82.33 | | | |
| -65.00 | 195.00 | -6.57 | -2.24 | -0.87 | 0.08408 | 58.95 | |
| RIGHT | 9.19097E-01 | -75.48 | 1.51368E+00 | -86.33 | | | |
| -60.00 | 195.00 | -6.62 | -2.43 | -1.03 | 0.05638 | 58.39 | |
| RIGHT | 9.13907E-01 | -83.23 | 1.47987E+00 | -90.45 | | | |
| -55.00 | 195.00 | -11.16 | -4.17 | -3.38 | 0.01356 | 65.92 | LEFT |
| 5.41936E-01 | -95.41 | 1.21209E+00 | -93.33 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -50.00 | 195.00 | -14.99 | -8.77 | -7.84 | 0.06406 | -64.14 | LEFT |
| 3.48768E-01 | 100.81 | 7.13612E-01 | -88.49 | | | | |
| -45.00 | 195.00 | -1.27 | -15.05 | -1.09 | 0.20344 | -1.21 | |
| RIGHT | 1.69252E+00 | 79.23 | 3.46177E-01 | | -16.45 | | |
| -40.00 | 195.00 | 4.46 | -6.22 | 4.82 | 0.18065 | 12.97 | |
| RIGHT | 3.27335E+00 | 67.78 | 9.57332E-01 | | 27.28 | | |
| -35.00 | 195.00 | 7.32 | -1.97 | 7.80 | 0.16191 | 16.87 | |
| RIGHT | 4.54664E+00 | 57.01 | 1.56137E+00 | | 26.11 | | |
| -30.00 | 195.00 | 7.78 | -0.92 | 8.33 | 0.15789 | 18.38 | |
| RIGHT | 4.79503E+00 | 46.75 | 1.76169E+00 | | 18.33 | | |
| -25.00 | 195.00 | 4.79 | -3.24 | 5.43 | 0.18534 | 19.36 | |
| RIGHT | 3.40032E+00 | 39.07 | 1.34817E+00 | | 7.54 | | |
| -20.00 | 195.00 | -9.24 | -16.98 | -8.56 | 0.35156 | -12.03 | |
| RIGHT | 6.76148E-01 | 99.65 | 2.77172E-01 | | -17.28 | | |
| -15.00 | 195.00 | 7.31 | -3.36 | 7.67 | 0.01592 | 16.29 | |
| RIGHT | 4.54365E+00 | 175.31 | 1.32951E+00 | | 171.93 | | |
| -10.00 | 195.00 | 13.41 | 3.93 | 13.88 | 0.05048 | 18.36 | |
| RIGHT | 9.17247E+00 | 167.32 | 3.07809E+00 | | 157.71 | | |
| -5.00 | 195.00 | 16.03 | 7.29 | 16.57 | 0.06496 | 19.79 | |
| RIGHT | 1.23970E+01 | 156.24 | 4.53193E+00 | | 144.67 | | |
| 0.00 | 195.00 | 16.47 | 8.61 | 17.13 | 0.07901 | 21.67 | |
| RIGHT | 1.30367E+01 | 144.77 | 5.27989E+00 | | 131.73 | | |
| -90.00 | 200.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 6.35569E-23 | -54.06 | 7.77077E-12 | 97.13 | | | | |
| -85.00 | 200.00 | -40.46 | -23.37 | -23.29 | 0.06458 | 82.93 | |
| RIGHT | 1.85656E-02 | -55.03 | 1.32843E-01 | | -83.01 | | |
| -80.00 | 200.00 | -28.50 | -17.39 | -17.06 | 0.11250 | 75.73 | |
| RIGHT | 7.35659E-02 | -57.95 | 2.64582E-01 | | -83.45 | | |
| -75.00 | 200.00 | -21.78 | -14.04 | -13.36 | 0.12952 | 68.73 | |
| RIGHT | 1.59459E-01 | -62.97 | 3.89124E-01 | | -84.25 | | |
| -70.00 | 200.00 | -17.67 | -12.01 | -10.97 | 0.10617 | 62.91 | |
| RIGHT | 2.56236E-01 | -70.57 | 4.91145E-01 | | -85.41 | | |
| -65.00 | 200.00 | -15.80 | -11.12 | -9.85 | 0.02999 | 59.75 | |
| RIGHT | 3.17751E-01 | -82.65 | 5.44230E-01 | | -86.60 | | |
| -60.00 | 200.00 | -16.96 | -11.61 | -10.50 | 0.16099 | 62.63 | LEFT |
| 2.77923E-01 | -108.69 | 5.14458E-01 | -86.65 | | | | |
| -55.00 | 200.00 | -16.73 | -14.32 | -12.35 | 0.61339 | -63.26 | LEFT |
| 2.85485E-01 | 167.37 | 3.76449E-01 | -80.41 | | | | |
| -50.00 | 200.00 | -6.83 | -19.39 | -6.60 | 0.11339 | -11.68 | |
| RIGHT | 8.91722E-01 | 116.56 | 2.10171E-01 | | -33.35 | | |
| -45.00 | 200.00 | -0.07 | -12.69 | 0.16 | 0.21842 | 4.76 | |
| RIGHT | 1.94314E+00 | 96.44 | 4.54150E-01 | | 26.26 | | |
| -40.00 | 200.00 | 4.24 | -6.92 | 4.56 | 0.20344 | 10.62 | |
| RIGHT | 3.19178E+00 | 81.62 | 8.82450E-01 | | 32.10 | | |
| -35.00 | 200.00 | 6.58 | -4.05 | 6.94 | 0.18379 | 12.95 | |
| RIGHT | 4.17891E+00 | 68.21 | 1.22876E+00 | | 27.15 | | |
| -30.00 | 200.00 | 6.74 | -3.48 | 7.14 | 0.17577 | 14.23 | |
| RIGHT | 4.25535E+00 | 55.61 | 1.31188E+00 | | 18.34 | | |
| -25.00 | 200.00 | 3.17 | -5.96 | 3.67 | 0.20505 | 15.86 | |
| RIGHT | 2.81950E+00 | 45.70 | 9.86152E-01 | | 6.55 | | |
| -20.00 | 200.00 | -9.83 | -19.39 | -9.38 | 0.01074 | -18.40 | |
| RIGHT | 6.31272E-01 | 153.36 | 2.10160E-01 | | -24.59 | | |

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|-------------|-------------|-------------|-------------|---------|---------|-------|------|
| -15.00 | 200.00 | 7.99 | -5.97 | 8.16 | 0.03304 | 11.19 | |
| RIGHT | 4.91248E+00 | -177.33 | 9.84824E-01 | | 172.81 | | |
| -10.00 | 200.00 | 13.72 | 1.43 | 13.96 | 0.05702 | 13.29 | |
| RIGHT | 9.49849E+00 | 171.17 | 2.30854E+00 | | 156.83 | | |
| -5.00 | 200.00 | 16.26 | 4.97 | 16.57 | 0.06731 | 14.80 | |
| RIGHT | 1.27340E+01 | 157.81 | 3.47104E+00 | | 142.50 | | |
| 0.00 | 200.00 | 16.73 | 6.55 | 17.13 | 0.07901 | 16.67 | |
| RIGHT | 1.34358E+01 | 144.32 | 4.16079E+00 | | 128.19 | | |
| -90.00 | 205.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 6.72860E-23 | -170.05 | 6.43007E-12 | 17.81 | | | | |
| -85.00 | 205.00 | -40.12 | -25.21 | -25.07 | 0.02295 | 79.90 | LEFT |
| 1.93102E-02 | -170.07 | 1.07488E-01 | -162.49 | | | | |
| -80.00 | 205.00 | -28.55 | -19.80 | -19.26 | 0.03770 | 70.03 | LEFT |
| 7.32156E-02 | -170.20 | 2.00413E-01 | -163.49 | | | | |
| -75.00 | 205.00 | -22.20 | -17.38 | -16.14 | 0.03987 | 60.20 | LEFT |
| 1.52077E-01 | -170.76 | 2.64928E-01 | -165.47 | | | | |
| -70.00 | 205.00 | -17.97 | -16.62 | -14.23 | 0.03064 | 49.46 | LEFT |
| 2.47285E-01 | -172.80 | 2.89041E-01 | -169.24 | | | | |
| -65.00 | 205.00 | -14.71 | -17.37 | -12.83 | 0.01193 | 36.36 | LEFT |
| 3.60063E-01 | -178.52 | 2.65101E-01 | -177.09 | | | | |
| -60.00 | 205.00 | -11.63 | -19.83 | -11.02 | 0.03780 | 21.16 | |
| RIGHT | 5.13479E-01 | 169.27 | 1.99671E-01 | | 162.85 | | |
| -55.00 | 205.00 | -8.06 | -21.17 | -7.85 | 0.14182 | 9.63 | |
| RIGHT | 7.74151E-01 | 150.38 | 1.71166E-01 | | 109.12 | | |
| -50.00 | 205.00 | -3.89 | -15.84 | -3.63 | 0.22811 | 6.22 | |
| RIGHT | 1.25078E+00 | 129.32 | 3.16126E-01 | | 63.44 | | |
| -45.00 | 205.00 | 0.20 | -10.95 | 0.52 | 0.24747 | 7.10 | |
| RIGHT | 2.00414E+00 | 110.12 | 5.54927E-01 | | 45.06 | | |
| -40.00 | 205.00 | 3.47 | -7.80 | 3.78 | 0.22984 | 8.44 | |
| RIGHT | 2.91967E+00 | 93.14 | 7.98205E-01 | | 34.03 | | |
| -35.00 | 205.00 | 5.37 | -6.15 | 5.66 | 0.20640 | 9.49 | |
| RIGHT | 3.63199E+00 | 77.52 | 9.64147E-01 | | 24.55 | | |
| -30.00 | 205.00 | 5.20 | -6.18 | 5.50 | 0.19359 | 10.67 | |
| RIGHT | 3.56170E+00 | 62.76 | 9.61560E-01 | | 14.90 | | |
| -25.00 | 205.00 | 0.70 | -8.81 | 1.16 | 0.22807 | 13.77 | |
| RIGHT | 2.12391E+00 | 50.45 | 7.09966E-01 | | 4.31 | | |
| -20.00 | 205.00 | -5.83 | -21.12 | -5.70 | 0.06776 | -8.98 | LEFT |
| 1.00141E+00 | -167.18 | 1.72221E-01 | -10.99 | | | | |
| -15.00 | 205.00 | 8.63 | -9.99 | 8.69 | 0.04902 | 6.07 | |
| RIGHT | 5.29204E+00 | -170.68 | 6.19761E-01 | | 164.27 | | |
| -10.00 | 205.00 | 13.96 | -2.06 | 14.07 | 0.06345 | 8.24 | |
| RIGHT | 9.77058E+00 | 174.71 | 1.54532E+00 | | 150.53 | | |
| -5.00 | 205.00 | 16.43 | 1.84 | 16.57 | 0.06968 | 9.82 | |
| RIGHT | 1.29764E+01 | 159.26 | 2.42031E+00 | | 136.63 | | |
| 0.00 | 205.00 | 16.92 | 3.81 | 17.13 | 0.07901 | 11.67 | |
| RIGHT | 1.37334E+01 | 143.90 | 3.03754E+00 | | 122.04 | | |
| -90.00 | 210.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.43543E-22 | -165.43 | 9.86211E-12 | 10.26 | | | | |
| -85.00 | 210.00 | -33.54 | -21.45 | -21.19 | 0.01865 | 76.08 | |
| RIGHT | 4.11873E-02 | -165.97 | 1.65680E-01 | | -170.54 | | |
| -80.00 | 210.00 | -22.00 | -15.91 | -14.95 | 0.03778 | 63.67 | |
| RIGHT | 1.55643E-01 | -167.60 | 3.13713E-01 | | -173.04 | | |

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|-------------|-------------|-------------|-------------|---------|---------|-------|------|
| -75.00 | 210.00 | -15.78 | -13.22 | -11.30 | 0.06005 | 53.37 | |
| RIGHT | 3.18494E-01 | -170.34 | 4.27355E-01 | -177.52 | | | |
| -70.00 | 210.00 | -11.91 | -11.98 | -8.94 | 0.08964 | 44.74 | |
| RIGHT | 4.97120E-01 | -174.35 | 4.92774E-01 | 175.40 | | | |
| -65.00 | 210.00 | -9.38 | -11.80 | -7.41 | 0.13020 | 36.83 | |
| RIGHT | 6.65452E-01 | 179.86 | 5.03448E-01 | 164.42 | | | |
| -60.00 | 210.00 | -7.54 | -12.41 | -6.31 | 0.18172 | 28.53 | |
| RIGHT | 8.22366E-01 | 171.10 | 4.69089E-01 | 146.97 | | | |
| -55.00 | 210.00 | -5.76 | -13.15 | -5.03 | 0.23625 | 19.70 | |
| RIGHT | 1.00866E+00 | 157.81 | 4.31090E-01 | 119.55 | | | |
| -50.00 | 210.00 | -3.49 | -12.58 | -2.99 | 0.27553 | 12.33 | |
| RIGHT | 1.31035E+00 | 139.94 | 4.60013E-01 | 84.92 | | | |
| -45.00 | 210.00 | -0.69 | -10.68 | -0.28 | 0.28106 | 8.34 | |
| RIGHT | 1.80805E+00 | 120.33 | 5.72602E-01 | 55.51 | | | |
| -40.00 | 210.00 | 1.95 | -8.95 | 2.29 | 0.25796 | 6.95 | |
| RIGHT | 2.45131E+00 | 101.61 | 6.98955E-01 | 35.09 | | | |
| -35.00 | 210.00 | 3.56 | -8.22 | 3.84 | 0.22731 | 6.92 | |
| RIGHT | 2.94986E+00 | 84.12 | 7.59949E-01 | 20.65 | | | |
| -30.00 | 210.00 | 3.06 | -8.91 | 3.32 | 0.20712 | 8.21 | |
| RIGHT | 2.78408E+00 | 67.30 | 7.02322E-01 | 10.43 | | | |
| -25.00 | 210.00 | -3.00 | -11.74 | -2.46 | 0.24225 | 15.38 | |
| RIGHT | 1.38587E+00 | 51.13 | 5.06841E-01 | 5.95 | | | |
| -20.00 | 210.00 | -2.13 | -19.10 | -2.04 | 0.00609 | -8.06 | LEFT |
| 1.53332E+00 | -148.42 | 2.17224E-01 | 29.07 | | | | |
| -15.00 | 210.00 | 9.21 | -14.43 | 9.23 | 0.06360 | 0.96 | |
| RIGHT | 5.65523E+00 | -164.81 | 3.71835E-01 | 119.83 | | | |
| -10.00 | 210.00 | 14.14 | -6.83 | 14.18 | 0.06968 | 3.21 | |
| RIGHT | 9.97871E+00 | 177.92 | 8.92500E-01 | 126.51 | | | |
| -5.00 | 210.00 | 16.52 | -2.55 | 16.58 | 0.07205 | 4.85 | |
| RIGHT | 1.31219E+01 | 160.57 | 1.45991E+00 | 119.86 | | | |
| 0.00 | 210.00 | 17.04 | 0.04 | 17.13 | 0.07901 | 6.67 | |
| RIGHT | 1.39272E+01 | 143.50 | 1.96628E+00 | 108.94 | | | |
| -90.00 | 215.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.62250E-22 | -153.16 | 9.65107E-12 | 20.11 | | | | |
| -85.00 | 215.00 | -32.49 | -21.61 | -21.27 | 0.03202 | 74.13 | |
| RIGHT | 4.65139E-02 | -153.88 | 1.62639E-01 | -160.83 | | | |
| -80.00 | 215.00 | -20.97 | -15.98 | -14.79 | 0.05738 | 60.72 | |
| RIGHT | 1.75165E-01 | -156.02 | 3.10966E-01 | -163.71 | | | |
| -75.00 | 215.00 | -14.82 | -13.15 | -10.90 | 0.07890 | 50.57 | |
| RIGHT | 3.55375E-01 | -159.59 | 4.31040E-01 | -168.78 | | | |
| -70.00 | 215.00 | -11.12 | -11.68 | -8.38 | 0.10401 | 43.12 | |
| RIGHT | 5.44349E-01 | -164.65 | 5.10468E-01 | -176.55 | | | |
| -65.00 | 215.00 | -8.91 | -11.17 | -6.88 | 0.13948 | 37.34 | |
| RIGHT | 7.02017E-01 | -171.49 | 5.41325E-01 | 172.08 | | | |
| -60.00 | 215.00 | -7.64 | -11.42 | -6.12 | 0.18890 | 31.96 | |
| RIGHT | 8.12678E-01 | 179.04 | 5.26045E-01 | 155.47 | | | |
| -55.00 | 215.00 | -6.69 | -12.09 | -5.59 | 0.24761 | 25.68 | |
| RIGHT | 9.06736E-01 | 165.36 | 4.86923E-01 | 131.32 | | | |
| -50.00 | 215.00 | -5.26 | -12.39 | -4.49 | 0.29507 | 18.23 | |
| RIGHT | 1.06851E+00 | 146.62 | 4.70212E-01 | 99.21 | | | |
| -45.00 | 215.00 | -2.96 | -11.70 | -2.41 | 0.30404 | 11.52 | |
| RIGHT | 1.39315E+00 | 125.44 | 5.08986E-01 | 65.73 | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -40.00 | 215.00 | -0.44 | -10.76 | -0.05 | 0.27556 | 7.42 | |
| RIGHT | 1.86258E+00 | 105.30 | 5.67353E-01 | | 38.55 | | |
| -35.00 | 215.00 | 1.13 | -10.66 | 1.41 | 0.23461 | 6.01 | |
| RIGHT | 2.23127E+00 | 86.54 | 5.73651E-01 | | 19.31 | | |
| -30.00 | 215.00 | 0.30 | -12.08 | 0.54 | 0.19928 | 7.67 | |
| RIGHT | 2.02601E+00 | 67.54 | 4.87166E-01 | | 10.07 | | |
| -25.00 | 215.00 | -8.72 | -14.67 | -7.73 | 0.11783 | 26.15 | |
| RIGHT | 7.17900E-01 | 38.88 | 3.61884E-01 | | 22.07 | | |
| -20.00 | 215.00 | 0.48 | -13.56 | 0.65 | 0.04198 | -10.99 | |
| RIGHT | 2.06982E+00 | -137.61 | 4.11117E-01 | | 55.05 | | |
| -15.00 | 215.00 | 9.69 | -9.85 | 9.73 | 0.07668 | -4.15 | |
| RIGHT | 5.97295E+00 | -159.75 | 6.30369E-01 | | 67.16 | | |
| -10.00 | 215.00 | 14.26 | -7.47 | 14.29 | 0.07562 | -1.81 | |
| RIGHT | 1.01126E+01 | -179.25 | 8.28517E-01 | | 68.26 | | |
| -5.00 | 215.00 | 16.55 | -6.01 | 16.58 | 0.07439 | -0.11 | |
| RIGHT | 1.31687E+01 | 161.72 | 9.79900E-01 | | 70.22 | | |
| 0.00 | 215.00 | 17.09 | -4.40 | 17.13 | 0.07901 | 1.67 | |
| RIGHT | 1.40157E+01 | 143.10 | 1.18065E+00 | | 73.27 | | |
| -90.00 | 220.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.28807E-22 | -143.08 | 7.68805E-12 | 39.22 | | | | |
| -85.00 | 220.00 | -34.51 | -23.56 | -23.22 | 0.00968 | 74.18 | LEFT |
| 3.68563E-02 | -143.94 | 1.30006E-01 | -141.82 | | | | |
| -80.00 | 220.00 | -23.05 | -17.84 | -16.70 | 0.01089 | 61.23 | LEFT |
| 1.37906E-01 | -146.51 | 2.51137E-01 | -145.03 | | | | |
| -75.00 | 220.00 | -17.02 | -14.85 | -12.79 | 0.00162 | 52.09 | LEFT |
| 2.75999E-01 | -150.82 | 3.54396E-01 | -150.63 | | | | |
| -70.00 | 220.00 | -13.54 | -13.15 | -10.33 | 0.01787 | 46.27 | |
| RIGHT | 4.12105E-01 | -156.97 | 4.30836E-01 | | -159.02 | | |
| -65.00 | 220.00 | -11.71 | -12.35 | -9.01 | 0.04787 | 42.89 | |
| RIGHT | 5.08586E-01 | -165.37 | 4.72577E-01 | | -170.86 | | |
| -60.00 | 220.00 | -11.02 | -12.29 | -8.60 | 0.08712 | 40.74 | |
| RIGHT | 5.50887E-01 | -177.16 | 4.75620E-01 | | 172.77 | | |
| -55.00 | 220.00 | -10.68 | -12.86 | -8.63 | 0.12971 | 37.64 | |
| RIGHT | 5.72506E-01 | 165.50 | 4.45492E-01 | | 150.24 | | |
| -50.00 | 220.00 | -9.38 | -13.70 | -8.01 | 0.17646 | 30.33 | |
| RIGHT | 6.65262E-01 | 142.50 | 4.04361E-01 | | 119.82 | | |
| -45.00 | 220.00 | -6.54 | -14.12 | -5.84 | 0.22293 | 19.53 | |
| RIGHT | 9.22224E-01 | 119.85 | 3.85160E-01 | | 83.18 | | |
| -40.00 | 220.00 | -3.45 | -14.03 | -3.09 | 0.22604 | 10.82 | |
| RIGHT | 1.31654E+00 | 100.77 | 3.89304E-01 | | 48.51 | | |
| -35.00 | 220.00 | -1.63 | -14.62 | -1.42 | 0.18829 | 6.94 | |
| RIGHT | 1.62360E+00 | 82.61 | 3.63995E-01 | | 24.19 | | |
| -30.00 | 220.00 | -2.81 | -16.95 | -2.64 | 0.11689 | 8.97 | |
| RIGHT | 1.41787E+00 | 60.89 | 2.78351E-01 | | 23.30 | | |
| -25.00 | 220.00 | -13.12 | -15.15 | -11.01 | 0.73016 | 20.56 | LEFT |
| 4.32246E-01 | -17.84 | 3.42205E-01 | 60.28 | | | | |
| -20.00 | 220.00 | 2.24 | -8.79 | 2.57 | 0.07519 | -15.15 | |
| RIGHT | 2.53415E+00 | -130.36 | 7.12123E-01 | | 66.32 | | |
| -15.00 | 220.00 | 10.03 | -4.63 | 10.18 | 0.08831 | -9.23 | |
| RIGHT | 6.21776E+00 | -155.53 | 1.14965E+00 | | 53.82 | | |
| -10.00 | 220.00 | 14.30 | -2.52 | 14.39 | 0.08120 | -6.79 | |
| RIGHT | 1.01629E+01 | -176.82 | 1.46532E+00 | | 38.00 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -5.00 | 220.00 | 16.52 | -2.11 | 16.58 | 0.07667 | -5.06 | |
| RIGHT | 1.31158E+01 | 162.69 | 1.53549E+00 | 23.99 | | | |
| 0.00 | 220.00 | 17.08 | -3.09 | 17.13 | 0.07901 | -3.33 | |
| RIGHT | 1.39982E+01 | 142.71 | 1.37288E+00 | 16.63 | | | |
| -90.00 | 225.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 7.43679E-23 | -141.96 | 6.12933E-12 | 72.84 | | | | |
| -85.00 | 225.00 | -39.31 | -25.51 | -25.33 | 0.11262 | 80.34 | LEFT |
| 2.12007E-02 | -143.08 | 1.03905E-01 | -108.49 | | | | |
| -80.00 | 225.00 | -27.96 | -19.71 | -19.11 | 0.19535 | 71.48 | LEFT |
| 7.83091E-02 | -146.51 | 2.02374E-01 | -112.51 | | | | |
| -75.00 | 225.00 | -22.17 | -16.59 | -15.53 | 0.23770 | 64.67 | LEFT |
| 1.52574E-01 | -152.49 | 2.89885E-01 | -119.40 | | | | |
| -70.00 | 225.00 | -19.11 | -14.70 | -13.35 | 0.25122 | 61.03 | LEFT |
| 2.17090E-01 | -161.70 | 3.60561E-01 | -129.37 | | | | |
| -65.00 | 225.00 | -17.92 | -13.63 | -12.25 | 0.26013 | 60.79 | LEFT |
| 2.48843E-01 | -175.88 | 4.07753E-01 | -142.66 | | | | |
| -60.00 | 225.00 | -17.79 | -13.29 | -11.97 | 0.30168 | 62.41 | LEFT |
| 2.52705E-01 | 161.51 | 4.23920E-01 | -159.53 | | | | |
| -55.00 | 225.00 | -16.70 | -13.75 | -11.97 | 0.41214 | 58.74 | LEFT |
| 2.86273E-01 | 131.28 | 4.02183E-01 | 179.50 | | | | |
| -50.00 | 225.00 | -13.40 | -15.16 | -11.18 | 0.39952 | 37.01 | LEFT |
| 4.18612E-01 | 108.48 | 3.41962E-01 | 153.16 | | | | |
| -45.00 | 225.00 | -9.29 | -17.55 | -8.68 | 0.12708 | 20.06 | LEFT |
| 6.72328E-01 | 96.87 | 2.59616E-01 | 118.72 | | | | |
| -40.00 | 225.00 | -5.68 | -20.26 | -5.53 | 0.03467 | 10.39 | |
| RIGHT | 1.01801E+00 | 87.01 | 1.89983E-01 | 75.94 | | | |
| -35.00 | 225.00 | -3.74 | -23.20 | -3.69 | 0.04627 | 5.47 | |
| RIGHT | 1.27333E+00 | 72.76 | 1.35423E-01 | 46.71 | | | |
| -30.00 | 225.00 | -5.20 | -21.96 | -5.11 | 0.09100 | 6.46 | LEFT |
| 1.07601E+00 | 47.39 | 1.56353E-01 | 86.76 | | | | |
| -25.00 | 225.00 | -9.07 | -11.84 | -7.22 | 0.27455 | -34.49 | LEFT |
| 6.89531E-01 | -56.34 | 5.01303E-01 | 91.19 | | | | |
| -20.00 | 225.00 | 3.34 | -5.21 | 3.91 | 0.09981 | -19.82 | |
| RIGHT | 2.87686E+00 | -125.22 | 1.07498E+00 | 72.32 | | | |
| -15.00 | 225.00 | 10.24 | -1.04 | 10.55 | 0.09860 | -14.27 | |
| RIGHT | 6.36731E+00 | -152.13 | 1.73673E+00 | 50.49 | | | |
| -10.00 | 225.00 | 14.27 | 1.32 | 14.48 | 0.08636 | -11.76 | |
| RIGHT | 1.01220E+01 | -174.83 | 2.28014E+00 | 28.74 | | | |
| -5.00 | 225.00 | 16.42 | 2.12 | 16.58 | 0.07886 | -9.99 | |
| RIGHT | 1.29631E+01 | 163.48 | 2.50078E+00 | 8.40 | | | |
| 0.00 | 225.00 | 17.01 | 1.42 | 17.13 | 0.07901 | -8.33 | |
| RIGHT | 1.38748E+01 | 142.31 | 2.30737E+00 | -8.67 | | | |
| -90.00 | 230.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 4.21847E-23 | -164.36 | 5.75448E-12 | 117.09 | | | | |
| -85.00 | 230.00 | -44.23 | -26.08 | -26.02 | 0.12113 | -88.56 | LEFT |
| 1.20276E-02 | -166.22 | 9.72227E-02 | -64.66 | | | | |
| -80.00 | 230.00 | -32.87 | -20.37 | -20.13 | 0.23140 | -86.98 | LEFT |
| 4.45241E-02 | -172.12 | 1.87611E-01 | -69.98 | | | | |
| -75.00 | 230.00 | -26.95 | -17.36 | -16.91 | 0.31910 | -84.89 | LEFT |
| 8.79419E-02 | 176.94 | 2.65463E-01 | -79.03 | | | | |
| -70.00 | 230.00 | -23.39 | -15.55 | -14.89 | 0.37650 | -81.32 | LEFT |
| 1.32622E-01 | 159.36 | 3.26978E-01 | -91.86 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -65.00 | 230.00 | -20.64 | -14.48 | -13.54 | 0.41352 | -74.75 | LEFT |
| 1.81862E-01 | 134.86 | 3.69532E-01 | -108.18 | | | | |
| -60.00 | 230.00 | -17.64 | -14.05 | -12.48 | 0.46736 | -63.76 | LEFT |
| 2.57042E-01 | 109.30 | 3.88358E-01 | -127.15 | | | | |
| -55.00 | 230.00 | -14.46 | -14.40 | -11.42 | 0.56494 | -45.34 | LEFT |
| 3.70744E-01 | 91.40 | 3.73020E-01 | -147.53 | | | | |
| -50.00 | 230.00 | -11.50 | -15.98 | -10.17 | 0.53860 | -15.20 | LEFT |
| 5.21253E-01 | 83.68 | 3.11126E-01 | -167.88 | | | | |
| -45.00 | 230.00 | -8.55 | -19.60 | -8.22 | 0.27976 | -0.85 | LEFT |
| 7.31931E-01 | 82.12 | 2.05046E-01 | 174.91 | | | | |
| -40.00 | 230.00 | -5.77 | -25.63 | -5.72 | 0.10066 | -0.79 | LEFT |
| 1.00824E+00 | 78.44 | 1.02450E-01 | 176.19 | | | | |
| -35.00 | 230.00 | -4.29 | -24.52 | -4.25 | 0.08294 | -2.93 | LEFT |
| 1.19460E+00 | 66.48 | 1.16437E-01 | -172.08 | | | | |
| -30.00 | 230.00 | -6.02 | -16.76 | -5.66 | 0.27408 | -5.46 | LEFT |
| 9.79781E-01 | 37.48 | 2.84301E-01 | 145.20 | | | | |
| -25.00 | 230.00 | -6.64 | -8.63 | -4.52 | 0.08964 | -38.39 | LEFT |
| 9.11297E-01 | -63.41 | 7.24767E-01 | 106.07 | | | | |
| -20.00 | 230.00 | 3.90 | -2.57 | 4.78 | 0.11959 | -24.72 | |
| RIGHT | 3.06879E+00 | -121.69 | 1.45717E+00 | | 76.03 | | |
| -15.00 | 230.00 | 10.30 | 1.56 | 10.84 | 0.10764 | -19.27 | |
| RIGHT | 6.40696E+00 | -149.58 | 2.34241E+00 | | 49.68 | | |
| -10.00 | 230.00 | 14.15 | 4.06 | 14.56 | 0.09106 | -16.68 | |
| RIGHT | 9.98531E+00 | -173.29 | 3.12613E+00 | | 25.18 | | |
| -5.00 | 230.00 | 16.25 | 5.13 | 16.57 | 0.08097 | -14.90 | |
| RIGHT | 1.27117E+01 | 164.05 | 3.53475E+00 | | 2.21 | | |
| 0.00 | 230.00 | 16.86 | 4.81 | 17.13 | 0.07901 | -13.33 | |
| RIGHT | 1.36465E+01 | 141.90 | 3.40688E+00 | | -18.59 | | |
| -90.00 | 235.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 4.64355E-23 | -173.87 | 6.15858E-12 | 169.84 | | | | |
| -85.00 | 235.00 | -43.35 | -25.60 | -25.52 | 0.03552 | -82.90 | LEFT |
| 1.33205E-02 | -175.86 | 1.02827E-01 | -12.02 | | | | |
| -80.00 | 235.00 | -31.79 | -20.20 | -19.91 | 0.06728 | -75.72 | LEFT |
| 5.03889E-02 | 178.01 | 1.91394E-01 | -17.77 | | | | |
| -75.00 | 235.00 | -25.48 | -17.72 | -17.04 | 0.09234 | -68.27 | LEFT |
| 1.04159E-01 | 167.34 | 2.54743E-01 | -27.81 | | | | |
| -70.00 | 235.00 | -21.29 | -16.62 | -15.35 | 0.11186 | -60.11 | LEFT |
| 1.68820E-01 | 152.03 | 2.88937E-01 | -42.66 | | | | |
| -65.00 | 235.00 | -17.99 | -16.32 | -14.07 | 0.13690 | -50.69 | LEFT |
| 2.46799E-01 | 133.64 | 2.99118E-01 | -62.25 | | | | |
| -60.00 | 235.00 | -15.02 | -16.46 | -12.67 | 0.17973 | -39.93 | LEFT |
| 3.47544E-01 | 116.03 | 2.94212E-01 | -84.65 | | | | |
| -55.00 | 235.00 | -12.26 | -17.07 | -11.02 | 0.21607 | -28.24 | LEFT |
| 4.77178E-01 | 103.30 | 2.74456E-01 | -105.24 | | | | |
| -50.00 | 235.00 | -9.65 | -18.43 | -9.11 | 0.18432 | -17.46 | LEFT |
| 6.44821E-01 | 96.71 | 2.34717E-01 | -116.97 | | | | |
| -45.00 | 235.00 | -7.00 | -19.57 | -6.76 | 0.09464 | -12.16 | LEFT |
| 8.74906E-01 | 93.08 | 2.05881E-01 | -111.80 | | | | |
| -40.00 | 235.00 | -4.66 | -17.97 | -4.46 | 0.04767 | -11.90 | LEFT |
| 1.14531E+00 | 86.43 | 2.47383E-01 | -106.89 | | | | |
| -35.00 | 235.00 | -3.69 | -16.09 | -3.45 | 0.09127 | -12.51 | LEFT |
| 1.28035E+00 | 72.22 | 3.07196E-01 | -131.30 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -30.00 | 235.00 | -5.92 | -13.28 | -5.19 | 0.30872 | -16.69 | LEFT |
| 9.90649E-01 | 41.06 | 4.24448E-01 | 169.93 | | | | |
| -25.00 | 235.00 | -6.34 | -6.63 | -3.47 | 0.02240 | -44.03 | LEFT |
| 9.43829E-01 | -62.94 | 9.12339E-01 | 114.49 | | | | |
| -20.00 | 235.00 | 3.99 | -0.65 | 5.27 | 0.13665 | -29.74 | |
| RIGHT | 3.10164E+00 | -119.58 | 1.81617E+00 | | 78.33 | | |
| -15.00 | 235.00 | 10.19 | 3.52 | 11.04 | 0.11553 | -24.22 | |
| RIGHT | 6.33128E+00 | -147.87 | 2.93592E+00 | | 49.51 | | |
| -10.00 | 235.00 | 13.94 | 6.12 | 14.61 | 0.09526 | -21.57 | |
| RIGHT | 9.75140E+00 | -172.22 | 3.96235E+00 | | 23.49 | | |
| -5.00 | 235.00 | 16.01 | 7.35 | 16.56 | 0.08295 | -19.80 | |
| RIGHT | 1.23637E+01 | 164.41 | 4.56549E+00 | | -0.90 | | |
| 0.00 | 235.00 | 16.65 | 7.29 | 17.13 | 0.07901 | -18.33 | |
| RIGHT | 1.33151E+01 | 141.47 | 4.53240E+00 | | -23.62 | | |
| -90.00 | 240.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 6.19371E-23 | -153.26 | 8.97980E-12 | -138.01 | | | | |
| -85.00 | 240.00 | -40.85 | -22.36 | -22.30 | 0.03182 | -83.46 | |
| RIGHT | 1.77484E-02 | -154.95 | 1.49248E-01 | | 40.77 | | |
| -80.00 | 240.00 | -29.32 | -17.09 | -16.84 | 0.06845 | -76.79 | |
| RIGHT | 6.69356E-02 | -160.09 | 2.73710E-01 | | 37.08 | | |
| -75.00 | 240.00 | -23.07 | -14.85 | -14.24 | 0.11518 | -69.63 | |
| RIGHT | 1.37523E-01 | -168.82 | 3.54148E-01 | | 30.87 | | |
| -70.00 | 240.00 | -19.00 | -14.18 | -12.94 | 0.17475 | -61.19 | |
| RIGHT | 2.19838E-01 | 178.96 | 3.82775E-01 | | 22.08 | | |
| -65.00 | 240.00 | -15.92 | -14.51 | -12.15 | 0.23262 | -50.17 | |
| RIGHT | 3.13142E-01 | 164.21 | 3.68426E-01 | | 10.77 | | |
| -60.00 | 240.00 | -13.17 | -15.27 | -11.08 | 0.24394 | -37.26 | |
| RIGHT | 4.29980E-01 | 149.27 | 3.37708E-01 | | -2.43 | | |
| -55.00 | 240.00 | -10.39 | -15.52 | -9.22 | 0.20266 | -27.42 | |
| RIGHT | 5.92342E-01 | 136.67 | 3.28073E-01 | | -15.99 | | |
| -50.00 | 240.00 | -7.51 | -14.44 | -6.71 | 0.15655 | -22.95 | |
| RIGHT | 8.24572E-01 | 126.64 | 3.71414E-01 | | -29.28 | | |
| -45.00 | 240.00 | -4.78 | -12.43 | -4.09 | 0.11222 | -21.77 | |
| RIGHT | 1.12991E+00 | 116.75 | 4.68297E-01 | | -44.99 | | |
| -40.00 | 240.00 | -2.73 | -10.82 | -2.10 | 0.05564 | -21.31 | |
| RIGHT | 1.43019E+00 | 104.17 | 5.63386E-01 | | -66.47 | | |
| -35.00 | 240.00 | -2.24 | -10.86 | -1.68 | 0.03331 | -20.27 | LEFT |
| 1.51298E+00 | 86.60 | 5.61091E-01 | -99.26 | | | | |
| -30.00 | 240.00 | -5.15 | -11.71 | -4.28 | 0.26855 | -21.21 | LEFT |
| 1.08283E+00 | 56.61 | 5.08343E-01 | -164.02 | | | | |
| -25.00 | 240.00 | -7.89 | -5.81 | -3.72 | 0.00343 | -51.78 | LEFT |
| 7.89697E-01 | -58.89 | 1.00286E+00 | 120.70 | | | | |
| -20.00 | 240.00 | 3.67 | 0.67 | 5.43 | 0.15230 | -34.81 | |
| RIGHT | 2.98765E+00 | -118.91 | 2.11444E+00 | | 79.49 | | |
| -15.00 | 240.00 | 9.93 | 5.02 | 11.15 | 0.12231 | -29.09 | |
| RIGHT | 6.14428E+00 | -147.01 | 3.49168E+00 | | 49.28 | | |
| -10.00 | 240.00 | 13.65 | 7.73 | 14.64 | 0.09894 | -26.41 | |
| RIGHT | 9.42251E+00 | -171.63 | 4.76652E+00 | | 22.45 | | |
| -5.00 | 240.00 | 15.69 | 9.07 | 16.55 | 0.08481 | -24.68 | |
| RIGHT | 1.19226E+01 | 164.53 | 5.56702E+00 | | -2.78 | | |
| 0.00 | 240.00 | 16.36 | 9.19 | 17.13 | 0.07901 | -23.33 | |
| RIGHT | 1.28831E+01 | 141.02 | 5.64445E+00 | | -26.65 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -90.00 | 245.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 7.66475E-23 | -133.96 | 1.32923E-11 | -105.21 | | | | |
| -85.00 | 245.00 | -38.97 | -18.89 | -18.85 | 0.04806 | -85.05 | |
| RIGHT | 2.20448E-02 | -135.37 | 2.22454E-01 | | 73.88 | | |
| -80.00 | 245.00 | -27.34 | -13.42 | -13.25 | 0.10002 | -80.08 | |
| RIGHT | 8.41187E-02 | -139.63 | 4.17498E-01 | | 71.13 | | |
| -75.00 | 245.00 | -20.90 | -10.79 | -10.39 | 0.15995 | -74.97 | |
| RIGHT | 1.76555E-01 | -146.72 | 5.65468E-01 | | 66.53 | | |
| -70.00 | 245.00 | -16.56 | -9.43 | -8.66 | 0.23028 | -69.34 | |
| RIGHT | 2.91040E-01 | -156.48 | 6.61120E-01 | | 59.89 | | |
| -65.00 | 245.00 | -13.18 | -8.72 | -7.39 | 0.30421 | -62.32 | |
| RIGHT | 4.29480E-01 | -168.37 | 7.17211E-01 | | 50.80 | | |
| -60.00 | 245.00 | -10.14 | -8.20 | -6.05 | 0.35185 | -53.21 | |
| RIGHT | 6.09226E-01 | 178.56 | 7.62206E-01 | | 38.50 | | |
| -55.00 | 245.00 | -7.17 | -7.46 | -4.30 | 0.33570 | -43.82 | |
| RIGHT | 8.57826E-01 | 165.18 | 8.30048E-01 | | 22.32 | | |
| -50.00 | 245.00 | -4.31 | -6.37 | -2.21 | 0.26842 | -37.19 | |
| RIGHT | 1.19246E+00 | 151.51 | 9.40505E-01 | | 2.51 | | |
| -45.00 | 245.00 | -1.85 | -5.24 | -0.21 | 0.18919 | -33.24 | |
| RIGHT | 1.58212E+00 | 136.88 | 1.07104E+00 | | -19.95 | | |
| -40.00 | 245.00 | -0.25 | -4.73 | 1.07 | 0.11258 | -30.44 | |
| RIGHT | 1.90231E+00 | 120.43 | 1.13592E+00 | | -44.94 | | |
| -35.00 | 245.00 | -0.19 | -5.81 | 0.86 | 0.02452 | -27.63 | |
| RIGHT | 1.91493E+00 | 101.16 | 1.00320E+00 | | -75.42 | | |
| -30.00 | 245.00 | -3.42 | -9.76 | -2.51 | 0.17378 | -24.29 | LEFT |
| 1.32084E+00 | 75.10 | 6.36747E-01 | -130.44 | | | | |
| -25.00 | 245.00 | -11.82 | -6.16 | -5.11 | 0.03488 | -62.53 | LEFT |
| 5.02245E-01 | -48.47 | 9.63965E-01 | 126.66 | | | | |
| -20.00 | 245.00 | 2.97 | 1.49 | 5.30 | 0.16735 | -39.87 | |
| RIGHT | 2.75647E+00 | -119.76 | 2.32531E+00 | | 79.53 | | |
| -15.00 | 245.00 | 9.52 | 6.18 | 11.17 | 0.12797 | -33.88 | |
| RIGHT | 5.85821E+00 | -147.00 | 3.98913E+00 | | 48.70 | | |
| -10.00 | 245.00 | 13.25 | 9.00 | 14.64 | 0.10208 | -31.21 | |
| RIGHT | 9.00421E+00 | -171.54 | 5.52219E+00 | | 21.56 | | |
| -5.00 | 245.00 | 15.29 | 10.45 | 16.53 | 0.08653 | -29.54 | |
| RIGHT | 1.13929E+01 | 164.41 | 6.52431E+00 | | -4.10 | | |
| 0.00 | 245.00 | 16.00 | 10.71 | 17.13 | 0.07901 | -28.33 | |
| RIGHT | 1.23539E+01 | 140.53 | 6.72417E+00 | | -28.69 | | |
| -90.00 | 250.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 7.12516E-23 | -122.00 | 1.48116E-11 | -79.81 | | | | |
| -85.00 | 250.00 | -39.51 | -17.86 | -17.84 | 0.05566 | -86.50 | |
| RIGHT | 2.07127E-02 | -123.33 | 2.50405E-01 | | 99.16 | | |
| -80.00 | 250.00 | -27.59 | -12.13 | -12.00 | 0.11377 | -82.91 | |
| RIGHT | 8.16922E-02 | -127.29 | 4.84863E-01 | | 95.99 | | |
| -75.00 | 250.00 | -20.66 | -9.02 | -8.73 | 0.17607 | -79.03 | |
| RIGHT | 1.81484E-01 | -133.83 | 6.93417E-01 | | 90.37 | | |
| -70.00 | 250.00 | -15.64 | -6.98 | -6.43 | 0.24121 | -74.34 | |
| RIGHT | 3.23437E-01 | -142.76 | 8.76579E-01 | | 81.82 | | |
| -65.00 | 250.00 | -11.51 | -5.44 | -4.48 | 0.29878 | -68.10 | |
| RIGHT | 5.20740E-01 | -153.72 | 1.04713E+00 | | 69.75 | | |
| -60.00 | 250.00 | -7.82 | -4.06 | -2.53 | 0.32550 | -60.15 | |
| RIGHT | 7.96065E-01 | -166.27 | 1.22764E+00 | | 53.88 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -55.00 | 250.00 | -4.47 | -2.67 | -0.47 | 0.30458 | -52.12 | |
| RIGHT | 1.16997E+00 | 179.92 | 1.43939E+00 | | 34.63 | | |
| -50.00 | 250.00 | -1.57 | -1.34 | 1.56 | 0.25059 | -45.84 | |
| RIGHT | 1.63511E+00 | 164.91 | 1.67789E+00 | | 13.06 | | |
| -45.00 | 250.00 | 0.69 | -0.34 | 3.22 | 0.18804 | -41.36 | |
| RIGHT | 2.12081E+00 | 148.60 | 1.88357E+00 | | -9.94 | | |
| -40.00 | 250.00 | 1.99 | -0.12 | 4.07 | 0.12650 | -37.86 | |
| RIGHT | 2.46388E+00 | 130.84 | 1.93119E+00 | | -34.31 | | |
| -35.00 | 250.00 | 1.81 | -1.45 | 3.49 | 0.05759 | -34.43 | |
| RIGHT | 2.41163E+00 | 111.33 | 1.65770E+00 | | -61.61 | | |
| -30.00 | 250.00 | -1.32 | -6.20 | -0.10 | 0.08027 | -29.48 | LEFT |
| 1.68165E+00 | 88.78 | 9.59044E-01 | -101.90 | | | | |
| -25.00 | 250.00 | -19.03 | -7.83 | -7.51 | 0.18187 | -78.30 | LEFT |
| 2.19089E-01 | -2.07 | 7.95470E-01 | 134.48 | | | | |
| -20.00 | 250.00 | 1.94 | 1.90 | 4.93 | 0.18227 | -44.84 | |
| RIGHT | 2.44937E+00 | -122.28 | 2.43696E+00 | | 78.38 | | |
| -15.00 | 250.00 | 8.96 | 7.06 | 11.12 | 0.13245 | -38.57 | |
| RIGHT | 5.49135E+00 | -147.84 | 4.41391E+00 | | 47.62 | | |
| -10.00 | 250.00 | 12.76 | 10.03 | 14.61 | 0.10468 | -35.96 | |
| RIGHT | 8.50505E+00 | -171.96 | 6.21623E+00 | | 20.59 | | |
| -5.00 | 250.00 | 14.82 | 11.58 | 16.50 | 0.08811 | -34.39 | |
| RIGHT | 1.07806E+01 | 164.02 | 7.42629E+00 | | -5.19 | | |
| 0.00 | 250.00 | 15.55 | 11.96 | 17.13 | 0.07901 | -33.33 | |
| RIGHT | 1.17317E+01 | 139.99 | 7.75891E+00 | | -30.18 | | |
| -90.00 | 255.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.95528E-23 | -110.47 | 1.28944E-11 | -41.31 | | | | |
| -85.00 | 255.00 | -44.33 | -18.99 | -18.98 | 0.05045 | -88.88 | |
| RIGHT | 1.18983E-02 | -112.26 | 2.19864E-01 | | 136.57 | | |
| -80.00 | 255.00 | -31.56 | -13.03 | -12.97 | 0.10915 | -87.38 | |
| RIGHT | 5.17249E-02 | -117.41 | 4.36941E-01 | | 130.11 | | |
| -75.00 | 255.00 | -23.38 | -9.53 | -9.35 | 0.18147 | -84.81 | |
| RIGHT | 1.32649E-01 | -125.30 | 6.53845E-01 | | 119.07 | | |
| -70.00 | 255.00 | -16.96 | -6.90 | -6.49 | 0.26088 | -80.05 | |
| RIGHT | 2.77899E-01 | -135.26 | 8.84909E-01 | | 103.44 | | |
| -65.00 | 255.00 | -11.54 | -4.56 | -3.76 | 0.31762 | -72.33 | |
| RIGHT | 5.18697E-01 | -146.78 | 1.15909E+00 | | 83.92 | | |
| -60.00 | 255.00 | -6.90 | -2.27 | -0.98 | 0.31961 | -63.38 | |
| RIGHT | 8.85181E-01 | -159.62 | 1.50830E+00 | | 62.01 | | |
| -55.00 | 255.00 | -2.99 | -0.09 | 1.70 | 0.27780 | -56.03 | |
| RIGHT | 1.38763E+00 | -173.73 | 1.93725E+00 | | 39.28 | | |
| -50.00 | 255.00 | 0.14 | 1.74 | 4.02 | 0.22347 | -50.81 | |
| RIGHT | 1.98925E+00 | 170.87 | 2.39217E+00 | | 16.53 | | |
| -45.00 | 255.00 | 2.39 | 2.95 | 5.69 | 0.17199 | -46.94 | |
| RIGHT | 2.57878E+00 | 154.18 | 2.74923E+00 | | -6.26 | | |
| -40.00 | 255.00 | 3.58 | 3.20 | 6.41 | 0.12442 | -43.68 | |
| RIGHT | 2.95888E+00 | 136.22 | 2.82972E+00 | | -29.58 | | |
| -35.00 | 255.00 | 3.32 | 1.92 | 5.69 | 0.07273 | -40.37 | |
| RIGHT | 2.86931E+00 | 117.04 | 2.44336E+00 | | -54.54 | | |
| -30.00 | 255.00 | 0.42 | -2.52 | 2.20 | 0.02015 | -35.47 | LEFT |
| 2.05551E+00 | 96.73 | 1.46519E+00 | -85.72 | | | | |
| -25.00 | 255.00 | -14.41 | -11.22 | -9.52 | 0.63110 | 72.48 | LEFT |
| 3.72562E-01 | 75.23 | 5.38367E-01 | 149.93 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -20.00 | 255.00 | 0.65 | 1.96 | 4.37 | 0.19700 | -49.63 | |
| RIGHT | 2.11158E+00 | -126.62 | 2.45359E+00 | | 75.93 | | |
| -15.00 | 255.00 | 8.25 | 7.71 | 11.00 | 0.13567 | -43.14 | |
| RIGHT | 5.06517E+00 | -149.50 | 4.75837E+00 | | 45.98 | | |
| -10.00 | 255.00 | 12.15 | 10.86 | 14.57 | 0.10674 | -40.65 | |
| RIGHT | 7.93582E+00 | -172.89 | 6.83842E+00 | | 19.43 | | |
| -5.00 | 255.00 | 14.24 | 12.51 | 16.47 | 0.08956 | -39.22 | |
| RIGHT | 1.00924E+01 | 163.35 | 8.26402E+00 | | -6.21 | | |
| 0.00 | 255.00 | 15.01 | 12.99 | 17.13 | 0.07901 | -38.33 | |
| RIGHT | 1.10213E+01 | 139.39 | 8.73862E+00 | | -31.32 | | |
| -90.00 | 260.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.30492E-23 | -4.77 | 1.64206E-11 | 12.45 | | | | |
| -85.00 | 260.00 | -55.17 | -17.13 | -17.13 | 0.00580 | -89.36 | |
| RIGHT | 3.41637E-03 | -17.99 | 2.72408E-01 | | -170.43 | | |
| -80.00 | 260.00 | -43.06 | -11.89 | -11.88 | 0.02509 | -89.34 | |
| RIGHT | 1.37750E-02 | -64.88 | 4.98433E-01 | | -179.66 | | |
| -75.00 | 260.00 | -30.76 | -9.51 | -9.48 | 0.08661 | 89.98 | |
| RIGHT | 5.67578E-02 | -107.35 | 6.55316E-01 | | 162.84 | | |
| -70.00 | 260.00 | -20.65 | -7.93 | -7.70 | 0.22946 | -88.38 | |
| RIGHT | 1.81688E-01 | -128.64 | 7.85896E-01 | | 134.73 | | |
| -65.00 | 260.00 | -13.00 | -5.57 | -4.85 | 0.36237 | -77.32 | |
| RIGHT | 4.38440E-01 | -143.68 | 1.03120E+00 | | 99.13 | | |
| -60.00 | 260.00 | -7.10 | -2.23 | -1.00 | 0.33048 | -64.65 | |
| RIGHT | 8.64756E-01 | -157.66 | 1.51520E+00 | | 66.13 | | |
| -55.00 | 260.00 | -2.54 | 1.02 | 2.60 | 0.25480 | -58.10 | |
| RIGHT | 1.46240E+00 | -172.13 | 2.20123E+00 | | 39.14 | | |
| -50.00 | 260.00 | 0.89 | 3.52 | 5.41 | 0.19658 | -54.24 | |
| RIGHT | 2.17025E+00 | 172.39 | 2.93649E+00 | | 15.72 | | |
| -45.00 | 260.00 | 3.24 | 5.07 | 7.26 | 0.15331 | -51.25 | |
| RIGHT | 2.84538E+00 | 155.76 | 3.50880E+00 | | -6.41 | | |
| -40.00 | 260.00 | 4.44 | 5.48 | 8.00 | 0.11698 | -48.50 | |
| RIGHT | 3.26657E+00 | 138.00 | 3.67963E+00 | | -28.55 | | |
| -35.00 | 260.00 | 4.19 | 4.36 | 7.28 | 0.07878 | -45.55 | |
| RIGHT | 3.17249E+00 | 119.34 | 3.23351E+00 | | -51.65 | | |
| -30.00 | 260.00 | 1.53 | 0.38 | 4.00 | 0.01502 | -41.21 | |
| RIGHT | 2.33630E+00 | 100.50 | 2.04585E+00 | | -77.76 | | |
| -25.00 | 260.00 | -9.29 | -15.32 | -8.33 | 0.47786 | -8.49 | LEFT |
| 6.71794E-01 | 90.67 | 3.35470E-01 | -166.06 | | | | |
| -20.00 | 260.00 | -0.81 | 1.74 | 3.66 | 0.21072 | -54.09 | |
| RIGHT | 1.78407E+00 | -132.87 | 2.39325E+00 | | 72.03 | | |
| -15.00 | 260.00 | 7.42 | 8.18 | 10.83 | 0.13749 | -47.59 | |
| RIGHT | 4.60140E+00 | -151.96 | 5.02100E+00 | | 43.75 | | |
| -10.00 | 260.00 | 11.44 | 11.52 | 14.49 | 0.10827 | -45.29 | |
| RIGHT | 7.30881E+00 | -174.35 | 7.38131E+00 | | 18.01 | | |
| -5.00 | 260.00 | 13.57 | 13.28 | 16.43 | 0.09086 | -44.03 | |
| RIGHT | 9.33606E+00 | 162.38 | 9.03017E+00 | | -7.23 | | |
| 0.00 | 260.00 | 14.36 | 13.86 | 17.13 | 0.07901 | -43.33 | |
| RIGHT | 1.02285E+01 | 138.71 | 9.65461E+00 | | -32.24 | | |
| -90.00 | 265.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 4.34885E-23 | 32.72 | 2.58118E-11 | 37.56 | | | | |
| -85.00 | 265.00 | -44.56 | -13.30 | -13.30 | 0.00260 | -88.44 | |
| RIGHT | 1.15880E-02 | 30.08 | 4.23455E-01 | | -144.47 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -80.00 | 265.00 | -35.36 | -8.42 | -8.41 | 0.00720 | -87.46 | |
| RIGHT | 3.34178E-02 | 19.76 | 7.42853E-01 | | -151.01 | | |
| -75.00 | 265.00 | -34.56 | -7.00 | -6.99 | 0.02465 | -88.06 | |
| RIGHT | 3.66503E-02 | -20.13 | 8.75115E-01 | | -164.04 | | |
| -70.00 | 265.00 | -25.92 | -7.69 | -7.63 | 0.11944 | 88.39 | |
| RIGHT | 9.91095E-02 | -113.08 | 8.07718E-01 | | 169.98 | | |
| -65.00 | 265.00 | -15.14 | -7.97 | -7.21 | 0.42773 | -84.47 | |
| RIGHT | 3.42665E-01 | -141.86 | 7.82053E-01 | | 117.77 | | |
| -60.00 | 265.00 | -7.96 | -3.59 | -2.24 | 0.34118 | -62.95 | |
| RIGHT | 7.83673E-01 | -158.38 | 1.29534E+00 | | 65.25 | | |
| -55.00 | 265.00 | -2.81 | 1.11 | 2.59 | 0.22128 | -58.93 | |
| RIGHT | 1.41674E+00 | -173.46 | 2.22638E+00 | | 34.30 | | |
| -50.00 | 265.00 | 0.89 | 4.37 | 5.98 | 0.16548 | -56.87 | |
| RIGHT | 2.16859E+00 | 171.01 | 3.23958E+00 | | 11.40 | | |
| -45.00 | 265.00 | 3.36 | 6.29 | 8.08 | 0.13262 | -54.84 | |
| RIGHT | 2.88246E+00 | 154.56 | 4.03941E+00 | | -9.44 | | |
| -40.00 | 265.00 | 4.61 | 6.91 | 8.92 | 0.10717 | -52.67 | |
| RIGHT | 3.33005E+00 | 137.16 | 4.33824E+00 | | -30.16 | | |
| -35.00 | 265.00 | 4.42 | 5.98 | 8.28 | 0.08049 | -50.18 | |
| RIGHT | 3.25697E+00 | 119.08 | 3.89657E+00 | | -51.56 | | |
| -30.00 | 265.00 | 1.98 | 2.42 | 5.22 | 0.03683 | -46.47 | |
| RIGHT | 2.45882E+00 | 101.37 | 2.58834E+00 | | -74.41 | | |
| -25.00 | 265.00 | -6.85 | -12.38 | -5.78 | 0.18330 | -26.49 | LEFT |
| 8.90009E-01 | 94.35 | 4.70725E-01 | -111.06 | | | | |
| -20.00 | 265.00 | -2.34 | 1.33 | 2.88 | 0.22132 | -58.06 | |
| RIGHT | 1.49597E+00 | -140.81 | 2.28283E+00 | | 66.59 | | |
| -15.00 | 265.00 | 6.46 | 8.49 | 10.60 | 0.13780 | -51.90 | |
| RIGHT | 4.11965E+00 | -155.19 | 5.20500E+00 | | 40.94 | | |
| -10.00 | 265.00 | 10.60 | 12.05 | 14.40 | 0.10928 | -49.87 | |
| RIGHT | 6.63710E+00 | -176.34 | 7.84012E+00 | | 16.31 | | |
| -5.00 | 265.00 | 12.77 | 13.91 | 16.39 | 0.09203 | -48.82 | |
| RIGHT | 8.52020E+00 | 161.07 | 9.71876E+00 | | -8.32 | | |
| 0.00 | 265.00 | 13.59 | 14.59 | 17.13 | 0.07901 | -48.33 | |
| RIGHT | 9.35953E+00 | 137.90 | 1.04992E+01 | | -33.01 | | |
| -90.00 | 270.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 5.45477E-23 | 25.43 | 3.06186E-11 | 45.76 | | | | |
| -85.00 | 270.00 | -42.43 | -11.83 | -11.82 | 0.01062 | -88.42 | |
| RIGHT | 1.48053E-02 | 23.13 | 5.01842E-01 | | -135.75 | | |
| -80.00 | 270.00 | -32.58 | -6.99 | -6.97 | 0.02184 | -87.26 | |
| RIGHT | 4.60271E-02 | 14.85 | 8.76144E-01 | | -140.52 | | |
| -75.00 | 270.00 | -30.21 | -5.74 | -5.73 | 0.03781 | -87.35 | |
| RIGHT | 6.04146E-02 | -8.95 | 1.01094E+00 | | -149.60 | | |
| -70.00 | 270.00 | -27.81 | -7.37 | -7.33 | 0.09242 | 88.74 | |
| RIGHT | 7.96440E-02 | -90.74 | 8.38281E-01 | | -167.45 | | |
| -65.00 | 270.00 | -16.78 | -11.92 | -10.69 | 0.56276 | 83.91 | |
| RIGHT | 2.83767E-01 | -140.02 | 4.96293E-01 | | 137.29 | | |
| -60.00 | 270.00 | -9.01 | -5.95 | -4.21 | 0.28940 | -56.80 | |
| RIGHT | 6.93697E-01 | -160.46 | 9.86695E-01 | | 54.12 | | |
| -55.00 | 270.00 | -3.59 | 0.61 | 2.01 | 0.16219 | -59.15 | |
| RIGHT | 1.29494E+00 | -176.59 | 2.10195E+00 | | 24.13 | | |
| -50.00 | 270.00 | 0.25 | 4.54 | 5.91 | 0.12675 | -59.07 | |
| RIGHT | 2.01618E+00 | 167.64 | 3.30186E+00 | | 3.93 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -45.00 | 270.00 | 2.81 | 6.77 | 8.24 | 0.10955 | -57.96 | |
| RIGHT | 2.70762E+00 | 151.32 | 4.27179E+00 | | -14.83 | | |
| -40.00 | 270.00 | 4.14 | 7.61 | 9.22 | 0.09618 | -56.37 | |
| RIGHT | 3.15304E+00 | 134.28 | 4.70108E+00 | | -33.83 | | |
| -35.00 | 270.00 | 4.03 | 6.88 | 8.70 | 0.08044 | -54.38 | |
| RIGHT | 3.11416E+00 | 116.77 | 4.32589E+00 | | -53.52 | | |
| -30.00 | 270.00 | 1.78 | 3.71 | 5.86 | 0.05234 | -51.35 | |
| RIGHT | 2.40327E+00 | 100.02 | 3.00143E+00 | | -73.84 | | |
| -25.00 | 270.00 | -5.91 | -8.17 | -3.89 | 0.05481 | -37.59 | LEFT |
| 9.91376E-01 | 94.41 | 7.64358E-01 | -92.08 | | | | |
| -20.00 | 270.00 | -3.83 | 0.81 | 2.10 | 0.22521 | -61.40 | |
| RIGHT | 1.25955E+00 | -149.81 | 2.15098E+00 | | 59.63 | | |
| -15.00 | 270.00 | 5.37 | 8.67 | 10.34 | 0.13649 | -56.06 | |
| RIGHT | 3.63590E+00 | -159.13 | 5.31620E+00 | | 37.59 | | |
| -10.00 | 270.00 | 9.63 | 12.45 | 14.28 | 0.10984 | -54.38 | |
| RIGHT | 5.93391E+00 | -178.91 | 8.21247E+00 | | 14.30 | | |
| -5.00 | 270.00 | 11.84 | 14.44 | 16.34 | 0.09309 | -53.60 | |
| RIGHT | 7.65403E+00 | 159.36 | 1.03252E+01 | | -9.51 | | |
| 0.00 | 270.00 | 12.67 | 15.20 | 17.13 | 0.07901 | -53.33 | |
| RIGHT | 8.42160E+00 | 136.91 | 1.12654E+01 | | -33.66 | | |
| -90.00 | 275.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 4.61064E-23 | 5.47 | 2.62564E-11 | 50.18 | | | | |
| -85.00 | 275.00 | -43.82 | -13.17 | -13.16 | 0.02127 | -88.84 | |
| RIGHT | 1.26203E-02 | 2.58 | 4.30170E-01 | | -130.92 | | |
| -80.00 | 275.00 | -33.63 | -8.35 | -8.34 | 0.04376 | -88.14 | |
| RIGHT | 4.07761E-02 | -7.82 | 7.48854E-01 | | -134.25 | | |
| -75.00 | 275.00 | -29.86 | -7.23 | -7.20 | 0.07117 | -88.88 | |
| RIGHT | 6.29150E-02 | -34.76 | 8.52230E-01 | | -140.08 | | |
| -70.00 | 275.00 | -25.81 | -9.50 | -9.40 | 0.12460 | 84.93 | |
| RIGHT | 1.00350E-01 | -94.45 | 6.56075E-01 | | -149.63 | | |
| -65.00 | 275.00 | -17.25 | -23.09 | -16.24 | 0.37053 | 19.68 | |
| RIGHT | 2.68889E-01 | -139.67 | 1.37286E-01 | | 166.77 | | |
| -60.00 | 275.00 | -10.07 | -7.83 | -5.80 | 0.07037 | -52.38 | |
| RIGHT | 6.13967E-01 | -163.10 | 7.94672E-01 | | 25.22 | | |
| -55.00 | 275.00 | -4.78 | -0.10 | 1.17 | 0.07229 | -59.92 | |
| RIGHT | 1.12906E+00 | 179.30 | 1.93585E+00 | | 8.81 | | |
| -50.00 | 275.00 | -0.94 | 4.14 | 5.31 | 0.07999 | -61.11 | |
| RIGHT | 1.75692E+00 | 162.95 | 3.15387E+00 | | -6.28 | | |
| -45.00 | 275.00 | 1.66 | 6.59 | 7.80 | 0.08453 | -60.70 | |
| RIGHT | 2.37137E+00 | 146.52 | 4.18401E+00 | | -22.19 | | |
| -40.00 | 275.00 | 3.06 | 7.63 | 8.93 | 0.08513 | -59.68 | |
| RIGHT | 2.78412E+00 | 129.69 | 4.71643E+00 | | -39.17 | | |
| -35.00 | 275.00 | 3.05 | 7.15 | 8.58 | 0.08054 | -58.24 | |
| RIGHT | 2.78128E+00 | 112.67 | 4.46057E+00 | | -57.06 | | |
| -30.00 | 275.00 | 0.96 | 4.34 | 5.98 | 0.06576 | -55.97 | |
| RIGHT | 2.18843E+00 | 96.75 | 3.22857E+00 | | -75.15 | | |
| -25.00 | 275.00 | -6.05 | -5.61 | -2.81 | 0.01619 | -46.47 | |
| RIGHT | 9.75710E-01 | 92.37 | 1.02699E+00 | | -85.77 | | |
| -20.00 | 275.00 | -5.25 | 0.27 | 1.35 | 0.21797 | -64.07 | |
| RIGHT | 1.07049E+00 | -158.85 | 2.02025E+00 | | 51.35 | | |
| -15.00 | 275.00 | 4.16 | 8.75 | 10.04 | 0.13355 | -60.04 | |
| RIGHT | 3.16217E+00 | -163.71 | 5.36094E+00 | | 33.74 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -10.00 | 275.00 | 8.50 | 12.75 | 14.14 | 0.10999 | -58.84 | |
| RIGHT | 5.21222E+00 | 177.90 | 8.49806E+00 | | 12.01 | | |
| -5.00 | 275.00 | 10.74 | 14.87 | 16.29 | 0.09403 | -58.37 | |
| RIGHT | 6.74735E+00 | 157.19 | 1.08462E+01 | | -10.82 | | |
| 0.00 | 275.00 | 11.57 | 15.71 | 17.13 | 0.07901 | -58.33 | |
| RIGHT | 7.42269E+00 | 135.67 | 1.19473E+01 | | -34.24 | | |
| -90.00 | 280.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.38941E-23 | -28.75 | 1.56315E-11 | 64.47 | | | | |
| -85.00 | 280.00 | -46.29 | -17.65 | -17.64 | 0.03674 | 89.75 | |
| RIGHT | 9.49535E-03 | -32.56 | 2.56726E-01 | | -115.91 | | |
| -80.00 | 280.00 | -35.29 | -12.78 | -12.75 | 0.07085 | 88.61 | |
| RIGHT | 3.36859E-02 | -45.43 | 4.49909E-01 | | -116.67 | | |
| -75.00 | 280.00 | -29.36 | -11.56 | -11.49 | 0.08990 | 84.73 | |
| RIGHT | 6.66282E-02 | -71.37 | 5.17434E-01 | | -116.13 | | |
| -70.00 | 280.00 | -23.80 | -13.42 | -13.04 | 0.01157 | 73.16 | LEFT |
| 1.26511E-01 | -108.85 | 4.17755E-01 | -106.46 | | | | |
| -65.00 | 280.00 | -17.29 | -15.36 | -13.21 | 0.79639 | -83.84 | LEFT |
| 2.67542E-01 | -142.08 | 3.34125E-01 | -49.28 | | | | |
| -60.00 | 280.00 | -11.29 | -7.13 | -5.72 | 0.18957 | -59.30 | LEFT |
| 5.33918E-01 | -166.06 | 8.62047E-01 | -10.19 | | | | |
| -55.00 | 280.00 | -6.42 | -0.91 | 0.17 | 0.03416 | -62.11 | LEFT |
| 9.35013E-01 | 174.79 | 1.76362E+00 | -9.94 | | | | |
| -50.00 | 280.00 | -2.70 | 3.15 | 4.16 | 0.02728 | -63.03 | |
| RIGHT | 1.43502E+00 | 157.41 | 2.81568E+00 | | -18.73 | | |
| -45.00 | 280.00 | -0.08 | 5.73 | 6.75 | 0.05864 | -63.04 | |
| RIGHT | 1.93987E+00 | 140.49 | 3.78996E+00 | | -31.23 | | |
| -40.00 | 280.00 | 1.39 | 7.01 | 8.06 | 0.07552 | -62.60 | |
| RIGHT | 2.29767E+00 | 123.58 | 4.38973E+00 | | -45.89 | | |
| -35.00 | 280.00 | 1.49 | 6.82 | 7.94 | 0.08272 | -61.84 | |
| RIGHT | 2.32446E+00 | 106.81 | 4.29597E+00 | | -61.87 | | |
| -30.00 | 280.00 | -0.45 | 4.42 | 5.64 | 0.07995 | -60.49 | |
| RIGHT | 1.85899E+00 | 91.51 | 3.25590E+00 | | -77.86 | | |
| -25.00 | 280.00 | -7.13 | -4.15 | -2.38 | 0.06288 | -54.70 | |
| RIGHT | 8.61811E-01 | 88.44 | 1.21380E+00 | | -83.93 | | |
| -20.00 | 280.00 | -6.61 | -0.26 | 0.64 | 0.19609 | -66.17 | |
| RIGHT | 9.14826E-01 | -166.72 | 1.90052E+00 | | 42.17 | | |
| -15.00 | 280.00 | 2.81 | 8.72 | 9.71 | 0.12904 | -63.86 | |
| RIGHT | 2.70712E+00 | -168.88 | 5.34456E+00 | | 29.47 | | |
| -10.00 | 280.00 | 7.20 | 12.95 | 13.97 | 0.10981 | -63.23 | |
| RIGHT | 4.48460E+00 | 173.99 | 8.69836E+00 | | 9.44 | | |
| -5.00 | 280.00 | 9.45 | 15.21 | 16.23 | 0.09488 | -63.12 | |
| RIGHT | 5.81063E+00 | 154.40 | 1.12796E+01 | | -12.24 | | |
| 0.00 | 280.00 | 10.25 | 16.13 | 17.13 | 0.07901 | -63.33 | |
| RIGHT | 6.37188E+00 | 134.03 | 1.25392E+01 | | -34.76 | | |
| -90.00 | 285.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.77087E-23 | -65.45 | 1.09977E-11 | 117.61 | | | | |
| -85.00 | 285.00 | -47.76 | -20.48 | -20.47 | 0.00450 | 87.54 | LEFT |
| 8.01390E-03 | -68.87 | 1.85309E-01 | -62.88 | | | | |
| -80.00 | 285.00 | -35.92 | -14.85 | -14.82 | 0.02350 | 85.13 | LEFT |
| 3.13201E-02 | -79.40 | 3.54189E-01 | -63.87 | | | | |
| -75.00 | 285.00 | -28.89 | -12.00 | -11.91 | 0.07767 | 83.15 | LEFT |
| 7.03676E-02 | -97.30 | 4.92107E-01 | -63.86 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -70.00 | 285.00 | -23.27 | -10.30 | -10.09 | 0.19404 | 83.51 | LEFT |
| 1.34462E-01 | -120.95 | 5.97920E-01 | -60.07 | | | | |
| -65.00 | 285.00 | -17.96 | -8.69 | -8.20 | 0.34097 | -87.55 | LEFT |
| 2.47555E-01 | -146.08 | 7.20445E-01 | -49.76 | | | | |
| -60.00 | 285.00 | -12.98 | -5.91 | -5.13 | 0.29767 | -71.68 | LEFT |
| 4.39562E-01 | -169.20 | 9.91910E-01 | -36.77 | | | | |
| -55.00 | 285.00 | -8.60 | -2.16 | -1.27 | 0.14088 | -65.49 | LEFT |
| 7.27277E-01 | 170.23 | 1.52705E+00 | -30.62 | | | | |
| -50.00 | 285.00 | -5.04 | 1.38 | 2.28 | 0.03098 | -64.54 | LEFT |
| 1.09584E+00 | 151.34 | 2.29681E+00 | -33.23 | | | | |
| -45.00 | 285.00 | -2.41 | 4.10 | 4.97 | 0.03305 | -64.76 | |
| RIGHT | 1.48336E+00 | 133.35 | 3.13929E+00 | | -41.74 | | |
| -40.00 | 285.00 | -0.85 | 5.72 | 6.58 | 0.06954 | -65.09 | |
| RIGHT | 1.77528E+00 | 115.85 | 3.78310E+00 | | -53.79 | | |
| -35.00 | 285.00 | -0.64 | 5.95 | 6.81 | 0.08926 | -65.28 | |
| RIGHT | 1.81959E+00 | 98.91 | 3.88375E+00 | | -67.76 | | |
| -30.00 | 285.00 | -2.49 | 4.02 | 4.90 | 0.09695 | -65.16 | |
| RIGHT | 1.47052E+00 | 83.85 | 3.11211E+00 | | -81.75 | | |
| -25.00 | 285.00 | -9.22 | -3.41 | -2.40 | 0.09406 | -63.24 | |
| RIGHT | 6.77783E-01 | 82.03 | 1.32258E+00 | | -84.69 | | |
| -20.00 | 285.00 | -8.00 | -0.80 | -0.04 | 0.15828 | -67.82 | |
| RIGHT | 7.79612E-01 | -172.35 | 1.78660E+00 | | 32.56 | | |
| -15.00 | 285.00 | 1.31 | 8.60 | 9.34 | 0.12316 | -67.47 | |
| RIGHT | 2.27728E+00 | -174.60 | 5.27062E+00 | | 24.86 | | |
| -10.00 | 285.00 | 5.67 | 13.07 | 13.79 | 0.10942 | -67.56 | |
| RIGHT | 3.76334E+00 | 169.19 | 8.81635E+00 | | 6.61 | | |
| -5.00 | 285.00 | 7.89 | 15.47 | 16.17 | 0.09565 | -67.86 | |
| RIGHT | 4.85548E+00 | 150.75 | 1.16246E+01 | | -13.80 | | |
| 0.00 | 285.00 | 8.61 | 16.47 | 17.13 | 0.07901 | -68.33 | |
| RIGHT | 5.27989E+00 | 131.73 | 1.30367E+01 | | -35.23 | | |
| -90.00 | 290.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.10893E-23 | -87.37 | 1.60378E-11 | 142.00 | | | | |
| -85.00 | 290.00 | -49.98 | -17.25 | -17.25 | 0.01786 | 89.16 | LEFT |
| 6.20582E-03 | -90.14 | 2.68738E-01 | -39.45 | | | | |
| -80.00 | 290.00 | -37.76 | -11.75 | -11.74 | 0.04086 | 88.34 | LEFT |
| 2.53542E-02 | -98.40 | 5.06422E-01 | -43.63 | | | | |
| -75.00 | 290.00 | -30.34 | -9.05 | -9.01 | 0.07591 | 87.66 | LEFT |
| 5.95596E-02 | -111.85 | 6.91155E-01 | -49.92 | | | | |
| -70.00 | 290.00 | -24.69 | -7.61 | -7.52 | 0.13350 | 87.59 | LEFT |
| 1.14182E-01 | -129.74 | 8.15810E-01 | -56.89 | | | | |
| -65.00 | 290.00 | -19.81 | -6.83 | -6.62 | 0.22420 | 89.72 | LEFT |
| 2.00073E-01 | -150.65 | 8.92193E-01 | -61.82 | | | | |
| -60.00 | 290.00 | -15.38 | -6.10 | -5.62 | 0.31390 | -81.99 | LEFT |
| 3.33431E-01 | -172.75 | 9.70273E-01 | -61.14 | | | | |
| -55.00 | 290.00 | -11.37 | -4.44 | -3.64 | 0.25835 | -69.64 | LEFT |
| 5.28839E-01 | 165.46 | 1.17474E+00 | -54.86 | | | | |
| -50.00 | 290.00 | -7.95 | -1.55 | -0.65 | 0.10459 | -64.93 | LEFT |
| 7.84573E-01 | 144.64 | 1.63898E+00 | -50.77 | | | | |
| -45.00 | 290.00 | -5.29 | 1.50 | 2.33 | 0.00784 | -65.42 | |
| RIGHT | 1.06493E+00 | 124.86 | 2.32742E+00 | | -53.95 | | |
| -40.00 | 290.00 | -3.64 | 3.73 | 4.46 | 0.07042 | -67.09 | |
| RIGHT | 1.28864E+00 | 106.01 | 3.00920E+00 | | -62.82 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -35.00 | 290.00 | -3.33 | 4.59 | 5.24 | 0.10284 | -68.75 | |
| RIGHT | 1.33489E+00 | 88.17 | 3.32124E+00 | | -74.72 | | |
| -30.00 | 290.00 | -5.20 | 3.29 | 3.86 | 0.11762 | -70.30 | |
| RIGHT | 1.07645E+00 | 72.47 | 2.85939E+00 | | -86.93 | | |
| -25.00 | 290.00 | -12.70 | -3.09 | -2.64 | 0.10892 | -72.65 | |
| RIGHT | 4.53632E-01 | 70.91 | 1.37185E+00 | | -87.92 | | |
| -20.00 | 290.00 | -9.43 | -1.43 | -0.79 | 0.10443 | -68.96 | |
| RIGHT | 6.61564E-01 | -174.63 | 1.66146E+00 | | 22.86 | | |
| -15.00 | 290.00 | -0.36 | 8.38 | 8.93 | 0.11624 | -70.88 | |
| RIGHT | 1.87844E+00 | 179.14 | 5.14123E+00 | | 19.98 | | |
| -10.00 | 290.00 | 3.88 | 13.11 | 13.60 | 0.10893 | -71.83 | |
| RIGHT | 3.06102E+00 | 163.13 | 8.85634E+00 | | 3.54 | | |
| -5.00 | 290.00 | 5.97 | 15.66 | 16.10 | 0.09637 | -72.59 | |
| RIGHT | 3.89597E+00 | 145.71 | 1.18814E+01 | | -15.48 | | |
| 0.00 | 290.00 | 6.55 | 16.73 | 17.13 | 0.07901 | -73.33 | |
| RIGHT | 4.16079E+00 | 128.19 | 1.34358E+01 | | -35.68 | | |
| -90.00 | 295.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.03244E-23 | -89.74 | 1.74865E-11 | 136.14 | | | | |
| -85.00 | 295.00 | -55.98 | -16.54 | -16.54 | 0.00793 | 89.59 | LEFT |
| 3.10933E-03 | -93.60 | 2.91523E-01 | -45.54 | | | | |
| -80.00 | 295.00 | -43.18 | -11.18 | -11.18 | 0.02022 | 89.15 | LEFT |
| 1.35828E-02 | -104.19 | 5.40710E-01 | -50.58 | | | | |
| -75.00 | 295.00 | -34.95 | -8.72 | -8.71 | 0.04245 | 88.62 | LEFT |
| 3.50448E-02 | -119.40 | 7.17386E-01 | -58.99 | | | | |
| -70.00 | 295.00 | -28.52 | -7.64 | -7.61 | 0.08309 | 87.97 | LEFT |
| 7.33915E-02 | -137.39 | 8.12500E-01 | -70.31 | | | | |
| -65.00 | 295.00 | -23.18 | -7.38 | -7.27 | 0.15604 | 87.46 | LEFT |
| 1.35817E-01 | -157.31 | 8.37253E-01 | -82.78 | | | | |
| -60.00 | 295.00 | -18.60 | -7.64 | -7.31 | 0.28259 | 89.03 | LEFT |
| 2.30048E-01 | -178.76 | 8.12606E-01 | -91.93 | | | | |
| -55.00 | 295.00 | -14.64 | -7.85 | -7.02 | 0.41322 | -78.66 | LEFT |
| 3.63072E-01 | 158.79 | 7.93119E-01 | -90.05 | | | | |
| -50.00 | 295.00 | -11.27 | -6.13 | -4.97 | 0.24070 | -63.30 | LEFT |
| 5.35351E-01 | 136.14 | 9.67042E-01 | -76.34 | | | | |
| -45.00 | 295.00 | -8.60 | -2.32 | -1.40 | 0.02218 | -64.12 | LEFT |
| 7.27622E-01 | 114.03 | 1.49857E+00 | -69.21 | | | | |
| -40.00 | 295.00 | -6.89 | 1.07 | 1.71 | 0.08250 | -68.61 | |
| RIGHT | 8.86015E-01 | 92.85 | 2.21463E+00 | | -73.41 | | |
| -35.00 | 295.00 | -6.57 | 2.89 | 3.35 | 0.12556 | -72.64 | |
| RIGHT | 9.19511E-01 | 72.75 | 2.73085E+00 | | -83.12 | | |
| -30.00 | 295.00 | -8.66 | 2.39 | 2.71 | 0.14057 | -76.36 | |
| RIGHT | 7.22554E-01 | 54.12 | 2.57756E+00 | | -93.85 | | |
| -25.00 | 295.00 | -18.78 | -2.97 | -2.86 | 0.10667 | -83.05 | |
| RIGHT | 2.25385E-01 | 43.77 | 1.39156E+00 | | -94.29 | | |
| -20.00 | 295.00 | -10.69 | -2.30 | -1.71 | 0.03225 | -69.24 | |
| RIGHT | 5.71825E-01 | -172.44 | 1.50349E+00 | | 13.12 | | |
| -15.00 | 295.00 | -2.22 | 8.07 | 8.46 | 0.10869 | -74.03 | |
| RIGHT | 1.51668E+00 | 172.32 | 4.95814E+00 | | 14.90 | | |
| -10.00 | 295.00 | 1.74 | 13.08 | 13.38 | 0.10849 | -76.04 | |
| RIGHT | 2.39215E+00 | 155.13 | 8.82392E+00 | | 0.25 | | |
| -5.00 | 295.00 | 3.57 | 15.78 | 16.04 | 0.09705 | -77.32 | |
| RIGHT | 2.95302E+00 | 138.14 | 1.20512E+01 | | -17.28 | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| 0.00 | 295.00 | 3.81 | 16.92 | 17.13 | 0.07901 | -78.33 | |
| RIGHT | 3.03754E+00 | 122.04 | 1.37334E+01 | | -36.10 | | |
| -90.00 | 300.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 5.91256E-24 | 10.59 | 1.50582E-11 | 120.18 | | | | |
| -85.00 | 300.00 | -62.19 | -17.85 | -17.85 | 0.00564 | 89.87 | |
| RIGHT | 1.52116E-03 | 6.69 | 2.50902E-01 | | -61.71 | | |
| -80.00 | 300.00 | -54.22 | -12.50 | -12.50 | 0.00686 | 89.74 | |
| RIGHT | 3.81028E-03 | -10.87 | 4.64203E-01 | | -67.54 | | |
| -75.00 | 300.00 | -51.65 | -10.09 | -10.09 | 0.00220 | 89.54 | LEFT |
| 5.11969E-03 | -93.05 | 6.12830E-01 | -77.76 | | | | |
| -70.00 | 300.00 | -38.26 | -9.04 | -9.04 | 0.02969 | 88.98 | LEFT |
| 2.39146E-02 | -151.94 | 6.91529E-01 | -92.75 | | | | |
| -65.00 | 300.00 | -29.17 | -8.70 | -8.66 | 0.08389 | 87.48 | LEFT |
| 6.81178E-02 | -174.24 | 7.19145E-01 | -111.70 | | | | |
| -60.00 | 300.00 | -22.88 | -8.81 | -8.64 | 0.17466 | 84.70 | LEFT |
| 1.40518E-01 | 166.44 | 7.10582E-01 | -130.61 | | | | |
| -55.00 | 300.00 | -18.24 | -9.71 | -9.14 | 0.35344 | 82.90 | LEFT |
| 2.39700E-01 | 145.76 | 6.40276E-01 | -141.13 | | | | |
| -50.00 | 300.00 | -14.73 | -11.10 | -9.54 | 0.56741 | -70.18 | LEFT |
| 3.59327E-01 | 123.05 | 5.45585E-01 | -126.08 | | | | |
| -45.00 | 300.00 | -12.12 | -7.43 | -6.16 | 0.08947 | -60.03 | LEFT |
| 4.85407E-01 | 98.86 | 8.32824E-01 | -92.91 | | | | |
| -40.00 | 300.00 | -10.48 | -2.02 | -1.44 | 0.10829 | -70.08 | |
| RIGHT | 5.86267E-01 | 74.03 | 1.55160E+00 | | -87.08 | | |
| -35.00 | 300.00 | -10.23 | 1.14 | 1.45 | 0.15636 | -77.58 | |
| RIGHT | 6.03182E-01 | 48.73 | 2.23409E+00 | | -93.93 | | |
| -30.00 | 300.00 | -12.54 | 1.57 | 1.74 | 0.16191 | -83.59 | |
| RIGHT | 4.62477E-01 | 20.37 | 2.34728E+00 | | -103.34 | | |
| -25.00 | 300.00 | -21.30 | -2.79 | -2.73 | 0.09766 | 86.14 | |
| RIGHT | 1.68566E-01 | -48.89 | 1.41956E+00 | | -104.60 | | |
| -20.00 | 300.00 | -11.26 | -3.60 | -2.91 | 0.06747 | -67.79 | LEFT |
| 5.35448E-01 | -166.00 | 1.29436E+00 | 3.04 | | | | |
| -15.00 | 300.00 | -4.26 | 7.65 | 7.92 | 0.10107 | -76.89 | |
| RIGHT | 1.19872E+00 | 164.87 | 4.72429E+00 | | 9.69 | | |
| -10.00 | 300.00 | -0.84 | 12.98 | 13.15 | 0.10825 | -80.20 | |
| RIGHT | 1.77785E+00 | 143.61 | 8.72586E+00 | | -3.23 | | |
| -5.00 | 300.00 | 0.48 | 15.84 | 15.97 | 0.09770 | -82.04 | |
| RIGHT | 2.06991E+00 | 125.07 | 1.21358E+01 | | -19.21 | | |
| 0.00 | 300.00 | 0.04 | 17.04 | 17.13 | 0.07901 | -83.33 | |
| RIGHT | 1.96628E+00 | 108.94 | 1.39272E+01 | | -36.50 | | |
| -90.00 | 305.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.82412E-23 | 27.15 | 1.33645E-11 | 100.86 | | | | |
| -85.00 | 305.00 | -51.75 | -18.86 | -18.85 | 0.02159 | -89.61 | |
| RIGHT | 5.06182E-03 | 26.54 | 2.23397E-01 | | -81.09 | | |
| -80.00 | 305.00 | -41.19 | -13.43 | -13.43 | 0.03788 | -89.11 | |
| RIGHT | 1.70781E-02 | 25.07 | 4.17108E-01 | | -87.19 | | |
| -75.00 | 305.00 | -37.08 | -10.90 | -10.89 | 0.04139 | -88.49 | |
| RIGHT | 2.74212E-02 | 24.39 | 5.58584E-01 | | -98.07 | | |
| -70.00 | 305.00 | -37.62 | -9.65 | -9.65 | 0.02125 | -88.06 | |
| RIGHT | 2.57445E-02 | 33.27 | 6.44480E-01 | | -114.56 | | |
| -65.00 | 305.00 | -38.07 | -8.95 | -8.94 | 0.02903 | -88.88 | LEFT |
| 2.44445E-02 | 99.90 | 6.99039E-01 | -136.24 | | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -60.00 | 305.00 | -28.21 | -8.40 | -8.35 | 0.09696 | 88.15 | LEFT |
| 7.61276E-02 | 129.13 | 7.44713E-01 | -159.15 | | | | |
| -55.00 | 305.00 | -21.90 | -8.49 | -8.30 | 0.18711 | 84.14 | LEFT |
| 1.57279E-01 | 121.12 | 7.37001E-01 | -176.54 | | | | |
| -50.00 | 305.00 | -18.02 | -10.42 | -9.72 | 0.40660 | 84.73 | LEFT |
| 2.45916E-01 | 102.75 | 5.90269E-01 | -177.88 | | | | |
| -45.00 | 305.00 | -15.61 | -11.29 | -9.92 | 0.24951 | -60.72 | LEFT |
| 3.24458E-01 | 77.38 | 5.33872E-01 | -134.58 | | | | |
| -40.00 | 305.00 | -14.17 | -4.63 | -4.17 | 0.14069 | -73.15 | |
| RIGHT | 3.83273E-01 | 45.96 | 1.14893E+00 | | -106.68 | | |
| -35.00 | 305.00 | -13.50 | -0.13 | 0.07 | 0.18796 | -84.10 | |
| RIGHT | 4.13888E-01 | 9.28 | 1.92979E+00 | | -108.42 | | |
| -30.00 | 305.00 | -13.72 | 1.16 | 1.30 | 0.17797 | 88.36 | |
| RIGHT | 4.03469E-01 | -34.93 | 2.23818E+00 | | -116.07 | | |
| -25.00 | 305.00 | -13.82 | -2.31 | -2.01 | 0.10088 | 76.18 | |
| RIGHT | 3.98866E-01 | -95.12 | 1.50114E+00 | | -118.85 | | |
| -20.00 | 305.00 | -10.61 | -5.62 | -4.43 | 0.21633 | -62.37 | LEFT |
| 5.76980E-01 | -159.29 | 1.02536E+00 | -8.21 | | | | |
| -15.00 | 305.00 | -6.45 | 7.12 | 7.31 | 0.09413 | -79.39 | |
| RIGHT | 9.31523E-01 | 156.71 | 4.44541E+00 | | 4.41 | | |
| -10.00 | 305.00 | -3.83 | 12.82 | 12.91 | 0.10839 | -84.32 | |
| RIGHT | 1.26038E+00 | 125.02 | 8.57006E+00 | | -6.89 | | |
| -5.00 | 305.00 | -3.06 | 15.85 | 15.90 | 0.09834 | -86.77 | |
| RIGHT | 1.37665E+00 | 98.31 | 1.21380E+01 | | -21.25 | | |
| 0.00 | 305.00 | -4.40 | 17.09 | 17.13 | 0.07901 | -88.33 | |
| RIGHT | 1.18065E+00 | 73.27 | 1.40157E+01 | | -36.90 | | |
| -90.00 | 310.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.84707E-23 | 9.80 | 1.59690E-11 | 84.37 | | | | |
| -85.00 | 310.00 | -47.76 | -17.29 | -17.28 | 0.02872 | -89.52 | |
| RIGHT | 8.01403E-03 | 9.17 | 2.67652E-01 | | -97.22 | | |
| -80.00 | 310.00 | -36.77 | -11.80 | -11.79 | 0.05317 | -88.91 | |
| RIGHT | 2.84205E-02 | 7.47 | 5.03127E-01 | | -102.19 | | |
| -75.00 | 310.00 | -31.67 | -9.22 | -9.19 | 0.06738 | -88.06 | |
| RIGHT | 5.10774E-02 | 5.40 | 6.77674E-01 | | -111.10 | | |
| -70.00 | 310.00 | -29.94 | -8.03 | -8.00 | 0.06119 | -87.03 | |
| RIGHT | 6.23329E-02 | 5.25 | 7.77014E-01 | | -124.87 | | |
| -65.00 | 310.00 | -31.29 | -7.58 | -7.56 | 0.02175 | -86.48 | |
| RIGHT | 5.33923E-02 | 16.32 | 8.18166E-01 | | -144.14 | | |
| -60.00 | 310.00 | -31.56 | -7.33 | -7.31 | 0.04768 | -87.78 | LEFT |
| 5.17270E-02 | 64.18 | 8.42147E-01 | -166.84 | | | | |
| -55.00 | 310.00 | -25.39 | -7.31 | -7.24 | 0.12432 | 89.42 | LEFT |
| 1.05349E-01 | 88.19 | 8.44571E-01 | 173.58 | | | | |
| -50.00 | 310.00 | -21.29 | -8.42 | -8.20 | 0.22715 | 89.72 | LEFT |
| 1.68771E-01 | 77.95 | 7.42836E-01 | 166.78 | | | | |
| -45.00 | 310.00 | -19.37 | -9.94 | -9.47 | 0.18366 | -74.14 | LEFT |
| 2.10687E-01 | 49.11 | 6.23663E-01 | -166.76 | | | | |
| -40.00 | 310.00 | -17.44 | -5.17 | -4.92 | 0.17046 | -80.13 | |
| RIGHT | 2.63038E-01 | 2.99 | 1.08015E+00 | | -130.91 | | |
| -35.00 | 310.00 | -13.88 | -0.37 | -0.18 | 0.20912 | 88.35 | |
| RIGHT | 3.96362E-01 | -43.84 | 1.87770E+00 | | -126.35 | | |
| -30.00 | 310.00 | -10.65 | 1.39 | 1.65 | 0.18771 | 80.62 | |
| RIGHT | 5.74515E-01 | -81.10 | 2.29821E+00 | | -131.51 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -25.00 | 310.00 | -9.04 | -1.34 | -0.66 | 0.12023 | 68.45 | |
| RIGHT | 6.91986E-01 | -115.90 | 1.67845E+00 | | -135.56 | | |
| -20.00 | 310.00 | -8.94 | -8.90 | -5.91 | 0.42063 | -45.19 | LEFT |
| 6.99903E-01 | -157.37 | 7.03085E-01 | -23.00 | | | | |
| -15.00 | 310.00 | -8.68 | 6.48 | 6.61 | 0.08882 | -81.45 | |
| RIGHT | 7.21233E-01 | 147.77 | 4.13102E+00 | | -0.88 | | |
| -10.00 | 310.00 | -6.36 | 12.61 | 12.67 | 0.10907 | -88.41 | |
| RIGHT | 9.41619E-01 | 93.43 | 8.36538E+00 | | -10.71 | | |
| -5.00 | 310.00 | -4.01 | 15.79 | 15.83 | 0.09898 | 88.50 | |
| RIGHT | 1.23461E+00 | 51.96 | 1.20607E+01 | | -23.40 | | |
| 0.00 | 310.00 | -3.09 | 17.08 | 17.13 | 0.07901 | 86.67 | |
| RIGHT | 1.37288E+00 | 16.63 | 1.39982E+01 | | -37.29 | | |
| -90.00 | 315.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.36561E-23 | -21.01 | 2.27959E-11 | 68.36 | | | | |
| -85.00 | 315.00 | -46.27 | -14.19 | -14.19 | 0.02488 | -89.97 | |
| RIGHT | 9.51314E-03 | -21.74 | 3.82259E-01 | | -112.80 | | |
| -80.00 | 315.00 | -35.17 | -8.70 | -8.69 | 0.04744 | -89.88 | |
| RIGHT | 3.41626E-02 | -23.85 | 7.19338E-01 | | -116.41 | | |
| -75.00 | 315.00 | -29.87 | -6.12 | -6.10 | 0.06458 | -89.62 | |
| RIGHT | 6.28588E-02 | -27.05 | 9.68337E-01 | | -122.83 | | |
| -70.00 | 315.00 | -27.80 | -5.02 | -5.00 | 0.07092 | -89.11 | |
| RIGHT | 7.97586E-02 | -30.52 | 1.09888E+00 | | -132.75 | | |
| -65.00 | 315.00 | -28.89 | -4.90 | -4.89 | 0.05682 | -88.41 | |
| RIGHT | 7.03812E-02 | -31.16 | 1.11341E+00 | | -147.06 | | |
| -60.00 | 315.00 | -34.48 | -5.33 | -5.32 | 0.01265 | -88.14 | |
| RIGHT | 3.69662E-02 | -6.98 | 1.06063E+00 | | -165.68 | | |
| -55.00 | 315.00 | -31.20 | -5.88 | -5.86 | 0.05049 | -88.88 | LEFT |
| 5.39102E-02 | 64.56 | 9.95629E-01 | 175.68 | | | | |
| -50.00 | 315.00 | -26.43 | -6.68 | -6.63 | 0.09747 | -88.12 | LEFT |
| 9.33836E-02 | 58.92 | 9.07872E-01 | 167.37 | | | | |
| -45.00 | 315.00 | -25.13 | -7.01 | -6.94 | 0.00929 | -82.94 | LEFT |
| 1.08540E-01 | 7.45 | 8.73646E-01 | -176.90 | | | | |
| -40.00 | 315.00 | -18.03 | -3.59 | -3.43 | 0.18908 | -89.16 | |
| RIGHT | 2.45806E-01 | -57.36 | 1.29609E+00 | | -151.64 | | |
| -35.00 | 315.00 | -11.16 | 0.49 | 0.78 | 0.21237 | 81.29 | |
| RIGHT | 5.42173E-01 | -88.83 | 2.07174E+00 | | -144.89 | | |
| -30.00 | 315.00 | -7.10 | 2.24 | 2.72 | 0.18995 | 74.15 | |
| RIGHT | 8.64653E-01 | -111.03 | 2.53486E+00 | | -147.90 | | |
| -25.00 | 315.00 | -5.56 | 0.03 | 1.09 | 0.14047 | 63.10 | |
| RIGHT | 1.03259E+00 | -132.89 | 1.96624E+00 | | -152.44 | | |
| -20.00 | 315.00 | -6.81 | -14.53 | -6.13 | 0.38121 | -8.87 | LEFT |
| 8.93992E-01 | -161.18 | 3.67628E-01 | -52.31 | | | | |
| -15.00 | 315.00 | -10.70 | 5.75 | 5.84 | 0.08653 | -82.97 | |
| RIGHT | 5.71655E-01 | 138.20 | 3.79481E+00 | | -6.14 | | |
| -10.00 | 315.00 | -6.17 | 12.35 | 12.42 | 0.11045 | 87.53 | |
| RIGHT | 9.62999E-01 | 54.28 | 8.12132E+00 | | -14.66 | | |
| -5.00 | 315.00 | -0.92 | 15.68 | 15.77 | 0.09963 | 83.76 | |
| RIGHT | 1.76079E+00 | 17.32 | 1.19073E+01 | | -25.66 | | |
| 0.00 | 315.00 | 1.42 | 17.01 | 17.13 | 0.07901 | 81.67 | |
| RIGHT | 2.30737E+00 | -8.67 | 1.38748E+01 | | -37.69 | | |
| -90.00 | 320.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.53629E-23 | -62.20 | 2.99409E-11 | 49.59 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -85.00 | 320.00 | -45.83 | -11.83 | -11.83 | 0.01851 | 89.58 | |
| RIGHT | 1.00059E-02 | -63.09 | 5.01801E-01 | -131.29 | | | |
| -80.00 | 320.00 | -34.70 | -6.35 | -6.34 | 0.03548 | 89.19 | |
| RIGHT | 3.60404E-02 | -65.79 | 9.43036E-01 | -134.02 | | | |
| -75.00 | 320.00 | -29.36 | -3.78 | -3.77 | 0.04888 | 88.89 | |
| RIGHT | 6.66560E-02 | -70.49 | 1.26708E+00 | -138.85 | | | |
| -70.00 | 320.00 | -27.22 | -2.72 | -2.70 | 0.05538 | 88.74 | |
| RIGHT | 8.53207E-02 | -77.79 | 1.43257E+00 | -146.26 | | | |
| -65.00 | 320.00 | -28.13 | -2.70 | -2.69 | 0.04926 | 88.80 | |
| RIGHT | 7.68347E-02 | -89.99 | 1.43474E+00 | -156.95 | | | |
| -60.00 | 320.00 | -33.52 | -3.39 | -3.39 | 0.02377 | 88.85 | |
| RIGHT | 4.12863E-02 | -121.41 | 1.32536E+00 | -171.16 | | | |
| -55.00 | 320.00 | -34.90 | -4.29 | -4.29 | 0.01522 | 88.55 | LEFT |
| 3.52086E-02 | 142.67 | 1.19441E+00 | 173.77 | | | | |
| -50.00 | 320.00 | -34.52 | -4.97 | -4.96 | 0.02728 | 88.91 | LEFT |
| 3.68083E-02 | 111.54 | 1.10516E+00 | 166.56 | | | | |
| -45.00 | 320.00 | -28.24 | -4.49 | -4.47 | 0.06432 | 89.49 | |
| RIGHT | 7.58643E-02 | -101.25 | 1.16828E+00 | 176.63 | | | |
| -40.00 | 320.00 | -14.71 | -1.49 | -1.29 | 0.18279 | 83.17 | |
| RIGHT | 3.60223E-01 | -109.31 | 1.64889E+00 | -167.33 | | | |
| -35.00 | 320.00 | -7.82 | 1.87 | 2.32 | 0.20035 | 75.45 | |
| RIGHT | 7.95539E-01 | -121.11 | 2.43006E+00 | -161.76 | | | |
| -30.00 | 320.00 | -4.00 | 3.42 | 4.15 | 0.18406 | 68.95 | |
| RIGHT | 1.23619E+00 | -134.04 | 2.90436E+00 | -163.65 | | | |
| -25.00 | 320.00 | -2.71 | 1.54 | 2.93 | 0.15036 | 59.17 | |
| RIGHT | 1.43404E+00 | -148.81 | 2.33900E+00 | -168.08 | | | |
| -20.00 | 320.00 | -4.61 | -17.14 | -4.37 | 0.11799 | 11.57 | LEFT |
| 1.15211E+00 | -168.96 | 2.72217E-01 | -137.62 | | | | |
| -15.00 | 320.00 | -12.16 | 4.93 | 5.01 | 0.08917 | -83.86 | |
| RIGHT | 4.82743E-01 | 128.50 | 3.45395E+00 | -11.31 | | | |
| -10.00 | 320.00 | -3.83 | 12.06 | 12.17 | 0.11267 | 83.47 | |
| RIGHT | 1.26051E+00 | 26.53 | 7.84755E+00 | -18.75 | | | |
| -5.00 | 320.00 | 2.30 | 15.51 | 15.71 | 0.10028 | 79.01 | |
| RIGHT | 2.55296E+00 | 0.41 | 1.16812E+01 | -28.01 | | | |
| 0.00 | 320.00 | 4.81 | 16.86 | 17.13 | 0.07901 | 76.67 | |
| RIGHT | 3.40688E+00 | -18.59 | 1.36465E+01 | -38.10 | | | |
| -90.00 | 325.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 3.40958E-23 | -106.54 | 3.19763E-11 | 28.47 | | | | |
| -85.00 | 325.00 | -46.17 | -11.27 | -11.27 | 0.01263 | 89.27 | |
| RIGHT | 9.62702E-03 | -107.65 | 5.35075E-01 | -152.25 | | | |
| -80.00 | 325.00 | -35.09 | -5.83 | -5.82 | 0.02361 | 88.56 | |
| RIGHT | 3.44775E-02 | -111.18 | 1.00092E+00 | -154.48 | | | |
| -75.00 | 325.00 | -29.82 | -3.33 | -3.32 | 0.03073 | 87.93 | |
| RIGHT | 6.32504E-02 | -117.96 | 1.33503E+00 | -158.45 | | | |
| -70.00 | 325.00 | -27.66 | -2.35 | -2.33 | 0.03046 | 87.43 | |
| RIGHT | 8.10854E-02 | -130.35 | 1.49492E+00 | -164.60 | | | |
| -65.00 | 325.00 | -27.71 | -2.43 | -2.42 | 0.01730 | 87.04 | |
| RIGHT | 8.06279E-02 | -154.97 | 1.48009E+00 | -173.54 | | | |
| -60.00 | 325.00 | -27.37 | -3.22 | -3.20 | 0.01339 | 86.54 | LEFT |
| 8.38323E-02 | 162.03 | 1.35189E+00 | 174.54 | | | | |
| -55.00 | 325.00 | -25.00 | -4.12 | -4.09 | 0.04870 | 85.64 | LEFT |
| 1.10185E-01 | 129.55 | 1.21812E+00 | 162.34 | | | | |

| | | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -50.00 | 325.00 | -25.26 | -4.42 | -4.39 | 0.03815 | 85.29 | LEFT |
| 1.06913E-01 | 133.12 | 1.17697E+00 | 158.13 | | | | |
| -45.00 | 325.00 | -21.03 | -3.09 | -3.03 | 0.06761 | 83.88 | |
| RIGHT | 1.73858E-01 | -159.70 | 1.37141E+00 | | 167.65 | | |
| -40.00 | 325.00 | -11.04 | 0.12 | 0.44 | 0.16308 | 77.38 | |
| RIGHT | 5.49603E-01 | -142.64 | 1.98604E+00 | | 179.19 | | |
| -35.00 | 325.00 | -4.82 | 3.22 | 3.85 | 0.18194 | 70.56 | |
| RIGHT | 1.12394E+00 | -145.91 | 2.83576E+00 | | -176.85 | | |
| -30.00 | 325.00 | -1.31 | 4.61 | 5.60 | 0.17266 | 64.47 | |
| RIGHT | 1.68506E+00 | -153.69 | 3.32892E+00 | | -178.28 | | |
| -25.00 | 325.00 | -0.24 | 2.93 | 4.64 | 0.14991 | 55.72 | |
| RIGHT | 1.90480E+00 | -164.00 | 2.74345E+00 | | 177.76 | | |
| -20.00 | 325.00 | -2.49 | -10.68 | -1.88 | 0.02931 | 21.22 | |
| RIGHT | 1.46984E+00 | -178.86 | 5.72325E-01 | | 176.17 | | |
| -15.00 | 325.00 | -12.78 | 4.07 | 4.16 | 0.09925 | -84.06 | |
| RIGHT | 4.49851E-01 | 119.39 | 3.12767E+00 | | -16.39 | | |
| -10.00 | 325.00 | -1.42 | 11.72 | 11.93 | 0.11582 | 79.38 | |
| RIGHT | 1.66374E+00 | 10.00 | 7.55328E+00 | | -22.96 | | |
| -5.00 | 325.00 | 4.82 | 15.29 | 15.66 | 0.10094 | 74.23 | |
| RIGHT | 3.41231E+00 | -9.14 | 1.13857E+01 | | -30.45 | | |
| 0.00 | 325.00 | 7.29 | 16.65 | 17.13 | 0.07901 | 71.67 | |
| RIGHT | 4.53240E+00 | -23.62 | 1.33151E+01 | | -38.53 | | |
| -90.00 | 330.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 2.26595E-23 | -152.06 | 2.51295E-11 | 5.73 | | | | |
| -85.00 | 330.00 | -49.85 | -13.40 | -13.40 | 0.00535 | 89.19 | |
| RIGHT | 6.30193E-03 | -154.12 | 4.18515E-01 | | -174.93 | | |
| -80.00 | 330.00 | -39.17 | -8.09 | -8.09 | 0.00757 | 88.46 | |
| RIGHT | 2.15561E-02 | -161.29 | 7.71535E-01 | | -177.02 | | |
| -75.00 | 330.00 | -34.42 | -5.81 | -5.80 | 0.00217 | 87.88 | |
| RIGHT | 3.72263E-02 | -177.51 | 1.00332E+00 | | 179.14 | | |
| -70.00 | 330.00 | -31.60 | -5.14 | -5.13 | 0.01870 | 87.50 | LEFT |
| 5.15252E-02 | 149.67 | 1.08341E+00 | 172.86 | | | | |
| -65.00 | 330.00 | -27.02 | -5.59 | -5.56 | 0.06745 | 87.06 | LEFT |
| 8.72364E-02 | 110.25 | 1.02895E+00 | 163.15 | | | | |
| -60.00 | 330.00 | -22.13 | -6.57 | -6.45 | 0.14716 | 85.52 | LEFT |
| 1.53286E-01 | 87.31 | 9.19565E-01 | 149.95 | | | | |
| -55.00 | 330.00 | -19.57 | -7.12 | -6.88 | 0.20425 | 82.96 | LEFT |
| 2.05805E-01 | 78.66 | 8.62400E-01 | 138.93 | | | | |
| -50.00 | 330.00 | -21.00 | -6.33 | -6.18 | 0.14188 | 83.25 | LEFT |
| 1.74538E-01 | 90.67 | 9.44946E-01 | 141.80 | | | | |
| -45.00 | 330.00 | -18.57 | -3.24 | -3.11 | 0.04098 | 80.56 | |
| RIGHT | 2.30890E-01 | 170.73 | 1.34893E+00 | | 156.49 | | |
| -40.00 | 330.00 | -8.39 | 0.97 | 1.45 | 0.14318 | 72.82 | |
| RIGHT | 7.45694E-01 | -166.17 | 2.19033E+00 | | 166.45 | | |
| -35.00 | 330.00 | -2.33 | 4.22 | 5.09 | 0.16392 | 66.14 | |
| RIGHT | 1.49785E+00 | -166.35 | 3.18341E+00 | | 169.17 | | |
| -30.00 | 330.00 | 1.01 | 5.59 | 6.89 | 0.15933 | 60.26 | |
| RIGHT | 2.20028E+00 | -171.21 | 3.72559E+00 | | 168.00 | | |
| -25.00 | 330.00 | 1.91 | 4.04 | 6.12 | 0.14315 | 52.25 | |
| RIGHT | 2.44058E+00 | -178.47 | 3.11820E+00 | | 164.73 | | |
| -20.00 | 330.00 | -0.55 | -6.78 | 0.38 | 0.08676 | 25.67 | |
| RIGHT | 1.83844E+00 | 170.34 | 8.97041E-01 | | 157.72 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -15.00 | 330.00 | -12.50 | 3.21 | 3.33 | 0.11953 | -83.61 | |
| RIGHT | 4.64155E-01 | 110.94 | 2.83498E+00 | | -21.40 | | |
| -10.00 | 330.00 | 0.59 | 11.36 | 11.71 | 0.11992 | 75.25 | |
| RIGHT | 2.09535E+00 | -1.00 | 7.24658E+00 | | -27.30 | | |
| -5.00 | 330.00 | 6.79 | 15.01 | 15.62 | 0.10159 | 69.44 | |
| RIGHT | 4.28110E+00 | -15.64 | 1.10238E+01 | | -32.98 | | |
| 0.00 | 330.00 | 9.19 | 16.36 | 17.13 | 0.07901 | 66.67 | |
| RIGHT | 5.64445E+00 | -26.65 | 1.28831E+01 | | -38.98 | | |
| -90.00 | 335.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.29793E-23 | 46.93 | 9.12047E-12 | -19.07 | | | | |
| -85.00 | 335.00 | -53.48 | -22.47 | -22.47 | 0.02560 | -89.33 | LEFT |
| 4.15069E-03 | 45.11 | 1.47309E-01 | 159.80 | | | | |
| -80.00 | 335.00 | -39.50 | -18.04 | -18.01 | 0.07662 | -87.96 | LEFT |
| 2.07338E-02 | 41.01 | 2.45479E-01 | 155.73 | | | | |
| -75.00 | 335.00 | -30.18 | -17.49 | -17.27 | 0.21824 | -85.49 | LEFT |
| 6.06390E-02 | 36.73 | 2.61335E-01 | 145.62 | | | | |
| -70.00 | 335.00 | -23.19 | -19.31 | -17.82 | 0.63489 | 84.87 | LEFT |
| 1.35671E-01 | 33.00 | 2.11933E-01 | 118.22 | | | | |
| -65.00 | 335.00 | -18.00 | -18.47 | -15.22 | 0.33855 | 43.03 | LEFT |
| 2.46680E-01 | 29.87 | 2.33541E-01 | 67.35 | | | | |
| -60.00 | 335.00 | -14.55 | -14.87 | -11.70 | 0.13316 | 43.92 | LEFT |
| 3.66599E-01 | 27.41 | 3.53532E-01 | 42.59 | | | | |
| -55.00 | 335.00 | -13.26 | -14.21 | -10.70 | 0.18448 | 41.65 | LEFT |
| 4.25355E-01 | 26.33 | 3.81311E-01 | 47.37 | | | | |
| -50.00 | 335.00 | -15.88 | -13.96 | -11.80 | 0.66436 | 62.12 | LEFT |
| 3.14640E-01 | 31.56 | 3.92711E-01 | 102.40 | | | | |
| -45.00 | 335.00 | -20.97 | -5.40 | -5.28 | 0.00746 | 80.55 | LEFT |
| 1.75220E-01 | 142.46 | 1.05216E+00 | 145.10 | | | | |
| -40.00 | 335.00 | -6.78 | 1.04 | 1.70 | 0.12953 | 68.90 | |
| RIGHT | 8.97438E-01 | 175.61 | 2.20730E+00 | | 154.20 | | |
| -35.00 | 335.00 | -0.34 | 4.80 | 5.96 | 0.14941 | 61.88 | |
| RIGHT | 1.88368E+00 | 175.96 | 3.40510E+00 | | 155.78 | | |
| -30.00 | 335.00 | 2.98 | 6.26 | 7.93 | 0.14645 | 56.07 | |
| RIGHT | 2.75872E+00 | 172.78 | 4.02691E+00 | | 154.87 | | |
| -25.00 | 335.00 | 3.77 | 4.81 | 7.33 | 0.13345 | 48.54 | |
| RIGHT | 3.02314E+00 | 167.75 | 3.40748E+00 | | 152.44 | | |
| -20.00 | 335.00 | 1.17 | -4.60 | 2.19 | 0.10386 | 26.78 | |
| RIGHT | 2.24074E+00 | 159.29 | 1.15304E+00 | | 144.66 | | |
| -15.00 | 335.00 | -11.63 | 2.44 | 2.60 | 0.15188 | -82.75 | |
| RIGHT | 5.13455E-01 | 102.37 | 2.59223E+00 | | -26.48 | | |
| -10.00 | 335.00 | 2.24 | 10.98 | 11.53 | 0.12491 | 71.03 | |
| RIGHT | 2.53319E+00 | -9.33 | 6.93366E+00 | | -31.76 | | |
| -5.00 | 335.00 | 8.38 | 14.67 | 15.58 | 0.10221 | 64.61 | |
| RIGHT | 5.13848E+00 | -20.65 | 1.05983E+01 | | -35.59 | | |
| 0.00 | 335.00 | 10.71 | 16.00 | 17.13 | 0.07901 | 61.67 | |
| RIGHT | 6.72417E+00 | -28.69 | 1.23539E+01 | | -39.47 | | |
| -90.00 | 340.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 6.75045E-23 | -11.50 | 1.29754E-11 | 140.41 | | | | |
| -85.00 | 340.00 | -39.79 | -18.72 | -18.68 | 0.04114 | 85.52 | |
| RIGHT | 2.00709E-02 | -11.41 | 2.26982E-01 | | -39.32 | | |
| -80.00 | 340.00 | -27.36 | -12.18 | -12.05 | 0.07831 | 81.16 | |
| RIGHT | 8.39136E-02 | -11.21 | 4.81785E-01 | | -38.62 | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|------|
| -75.00 | 340.00 | -19.83 | -8.02 | -7.75 | 0.10953 | 76.92 | |
| RIGHT | 1.99601E-01 | -11.02 | 7.77443E-01 | -37.72 | | | |
| -70.00 | 340.00 | -14.46 | -5.04 | -4.57 | 0.13472 | 72.74 | |
| RIGHT | 3.70699E-01 | -10.99 | 1.09583E+00 | -36.83 | | | |
| -65.00 | 340.00 | -10.56 | -3.09 | -2.38 | 0.15458 | 68.44 | |
| RIGHT | 5.80870E-01 | -11.19 | 1.37192E+00 | -36.05 | | | |
| -60.00 | 340.00 | -8.05 | -2.39 | -1.35 | 0.16986 | 63.68 | |
| RIGHT | 7.74983E-01 | -11.63 | 1.48680E+00 | -35.39 | | | |
| -55.00 | 340.00 | -7.28 | -3.67 | -2.10 | 0.18096 | 57.43 | |
| RIGHT | 8.46582E-01 | -12.26 | 1.28341E+00 | -34.67 | | | |
| -50.00 | 340.00 | -9.59 | -10.01 | -6.78 | 0.17478 | 43.54 | |
| RIGHT | 6.49109E-01 | -12.74 | 6.18713E-01 | -32.59 | | | |
| -45.00 | 340.00 | -31.44 | -11.01 | -10.97 | 0.07032 | -86.34 | LEFT |
| 5.24454E-02 | 7.80 | 5.51438E-01 | 139.87 | | | | |
| -40.00 | 340.00 | -6.00 | 0.43 | 1.32 | 0.12679 | 65.25 | |
| RIGHT | 9.81908E-01 | 161.33 | 2.05688E+00 | 142.61 | | | |
| -35.00 | 340.00 | 1.22 | 4.99 | 6.51 | 0.13947 | 57.57 | |
| RIGHT | 2.25418E+00 | 160.09 | 3.47867E+00 | 142.65 | | | |
| -30.00 | 340.00 | 4.61 | 6.61 | 8.73 | 0.13505 | 51.76 | |
| RIGHT | 3.33105E+00 | 157.86 | 4.19041E+00 | 142.06 | | | |
| -25.00 | 340.00 | 5.34 | 5.21 | 8.29 | 0.12267 | 44.55 | |
| RIGHT | 3.62330E+00 | 154.58 | 3.56873E+00 | 140.59 | | | |
| -20.00 | 340.00 | 2.63 | -3.53 | 3.57 | 0.10439 | 25.72 | |
| RIGHT | 2.65091E+00 | 148.27 | 1.30473E+00 | 133.17 | | | |
| -15.00 | 340.00 | -10.52 | 1.81 | 2.05 | 0.19575 | -81.90 | |
| RIGHT | 5.83253E-01 | 92.63 | 2.41071E+00 | -31.80 | | | |
| -10.00 | 340.00 | 3.63 | 10.58 | 11.38 | 0.13061 | 66.70 | |
| RIGHT | 2.97428E+00 | -16.28 | 6.61820E+00 | -36.36 | | | |
| -5.00 | 340.00 | 9.69 | 14.26 | 15.56 | 0.10277 | 59.76 | |
| RIGHT | 5.97457E+00 | -24.85 | 1.01112E+01 | -38.28 | | | |
| 0.00 | 340.00 | 11.96 | 15.55 | 17.13 | 0.07901 | 56.67 | |
| RIGHT | 7.75891E+00 | -30.18 | 1.17317E+01 | -40.01 | | | |
| -90.00 | 345.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 | |
| 1.43433E-22 | -43.26 | 3.61426E-11 | 115.11 | | | | |
| -85.00 | 345.00 | -33.33 | -10.00 | -9.98 | 0.02502 | 86.37 | |
| RIGHT | 4.22066E-02 | -43.18 | 6.19213E-01 | -64.80 | | | |
| -80.00 | 345.00 | -21.15 | -3.96 | -3.87 | 0.04993 | 82.66 | |
| RIGHT | 1.71504E-01 | -42.95 | 1.24181E+00 | -64.52 | | | |
| -75.00 | 345.00 | -13.98 | -0.48 | -0.29 | 0.07437 | 78.80 | |
| RIGHT | 3.91587E-01 | -42.65 | 1.85221E+00 | -64.08 | | | |
| -70.00 | 345.00 | -9.01 | 1.76 | 2.11 | 0.09758 | 74.75 | |
| RIGHT | 6.94302E-01 | -42.32 | 2.39859E+00 | -63.54 | | | |
| -65.00 | 345.00 | -5.50 | 3.05 | 3.62 | 0.11861 | 70.46 | |
| RIGHT | 1.03992E+00 | -42.07 | 2.78165E+00 | -62.96 | | | |
| -60.00 | 345.00 | -3.32 | 3.28 | 4.14 | 0.13679 | 65.86 | |
| RIGHT | 1.33685E+00 | -42.00 | 2.85830E+00 | -62.48 | | | |
| -55.00 | 345.00 | -2.70 | 2.02 | 3.28 | 0.15269 | 60.66 | |
| RIGHT | 1.43463E+00 | -42.38 | 2.47179E+00 | -62.48 | | | |
| -50.00 | 345.00 | -4.62 | -2.22 | -0.25 | 0.17394 | 53.33 | |
| RIGHT | 1.15012E+00 | -44.18 | 1.51671E+00 | -64.71 | | | |
| -45.00 | 345.00 | -14.81 | -19.43 | -13.52 | 0.58417 | 3.84 | |
| RIGHT | 3.56078E-01 | -60.88 | 2.09220E-01 | -146.57 | | | |

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|-------------|-------------|-------------|-------------|---------|---------|--------|
| -40.00 | 345.00 | -5.68 | -0.65 | 0.53 | 0.14061 | 61.43 |
| RIGHT | 1.01852E+00 | 150.63 | 1.81626E+00 | | 131.77 | |
| -35.00 | 345.00 | 2.46 | 4.84 | 6.82 | 0.13419 | 53.07 |
| RIGHT | 2.59843E+00 | 145.42 | 3.42026E+00 | | 129.53 | |
| -30.00 | 345.00 | 5.96 | 6.62 | 9.31 | 0.12530 | 47.26 |
| RIGHT | 3.88881E+00 | 143.70 | 4.19875E+00 | | 129.37 | |
| -25.00 | 345.00 | 6.64 | 5.23 | 9.00 | 0.11158 | 40.26 |
| RIGHT | 4.20545E+00 | 141.90 | 3.57578E+00 | | 129.00 | |
| -20.00 | 345.00 | 3.81 | -3.34 | 4.57 | 0.09803 | 23.18 |
| RIGHT | 3.03669E+00 | 137.40 | 1.33255E+00 | | 122.10 | |
| -15.00 | 345.00 | -9.45 | 1.38 | 1.72 | 0.24753 | -81.67 |
| RIGHT | 6.59562E-01 | 80.88 | 2.29506E+00 | | -37.64 | |
| -10.00 | 345.00 | 4.85 | 10.15 | 11.27 | 0.13675 | 62.21 |
| RIGHT | 3.42232E+00 | -22.44 | 6.30094E+00 | | -41.11 | |
| -5.00 | 345.00 | 10.79 | 13.78 | 15.54 | 0.10325 | 54.87 |
| RIGHT | 6.78338E+00 | -28.55 | 9.56439E+00 | | -41.05 | |
| 0.00 | 345.00 | 12.99 | 15.01 | 17.13 | 0.07901 | 51.67 |
| RIGHT | 8.73862E+00 | -31.32 | 1.10213E+01 | | -40.61 | |
| -90.00 | 350.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 |
| 2.28056E-22 | -71.53 | 5.53223E-11 | 90.44 | | | |
| -85.00 | 350.00 | -29.33 | -6.34 | -6.32 | 0.02179 | 86.14 |
| RIGHT | 6.68779E-02 | -71.43 | 9.43777E-01 | | -89.42 | |
| -80.00 | 350.00 | -17.24 | -0.40 | -0.31 | 0.04342 | 82.19 |
| RIGHT | 2.69045E-01 | -71.12 | 1.86963E+00 | | -89.03 | |
| -75.00 | 350.00 | -10.20 | 2.91 | 3.12 | 0.06449 | 78.06 |
| RIGHT | 6.05056E-01 | -70.64 | 2.73732E+00 | | -88.38 | |
| -70.00 | 350.00 | -5.39 | 4.96 | 5.34 | 0.08425 | 73.72 |
| RIGHT | 1.05328E+00 | -70.01 | 3.46655E+00 | | -87.51 | |
| -65.00 | 350.00 | -2.04 | 6.05 | 6.68 | 0.10169 | 69.16 |
| RIGHT | 1.54763E+00 | -69.32 | 3.93022E+00 | | -86.49 | |
| -60.00 | 350.00 | -0.01 | 6.13 | 7.08 | 0.11581 | 64.36 |
| RIGHT | 1.95653E+00 | -68.72 | 3.96808E+00 | | -85.47 | |
| -55.00 | 350.00 | 0.54 | 4.87 | 6.23 | 0.12615 | 59.21 |
| RIGHT | 2.08313E+00 | -68.60 | 3.42925E+00 | | -84.85 | |
| -50.00 | 350.00 | -1.18 | 1.19 | 3.18 | 0.13507 | 53.02 |
| RIGHT | 1.70962E+00 | -70.31 | 2.24645E+00 | | -86.29 | |
| -45.00 | 350.00 | -8.64 | -10.41 | -6.42 | 0.23520 | 38.54 |
| RIGHT | 7.24031E-01 | -86.21 | 5.91040E-01 | | -113.28 | |
| -40.00 | 350.00 | -5.29 | -1.87 | -0.24 | 0.17386 | 56.71 |
| RIGHT | 1.06547E+00 | 142.31 | 1.57852E+00 | | 120.97 | |
| -35.00 | 350.00 | 3.48 | 4.44 | 7.00 | 0.13298 | 48.28 |
| RIGHT | 2.92323E+00 | 131.42 | 3.26546E+00 | | 116.18 | |
| -30.00 | 350.00 | 7.05 | 6.32 | 9.71 | 0.11684 | 42.53 |
| RIGHT | 4.40792E+00 | 130.07 | 4.05345E+00 | | 116.69 | |
| -25.00 | 350.00 | 7.66 | 4.84 | 9.49 | 0.10027 | 35.66 |
| RIGHT | 4.73155E+00 | 129.61 | 3.41875E+00 | | 117.54 | |
| -20.00 | 350.00 | 4.70 | -4.04 | 5.24 | 0.08865 | 19.55 |
| RIGHT | 3.36264E+00 | 126.65 | 1.23031E+00 | | 110.83 | |
| -15.00 | 350.00 | -8.52 | 1.18 | 1.62 | 0.30196 | -82.77 |
| RIGHT | 7.34121E-01 | 66.42 | 2.24284E+00 | | -44.19 | |
| -10.00 | 350.00 | 5.95 | 9.70 | 11.22 | 0.14296 | 57.53 |
| RIGHT | 3.88313E+00 | -28.15 | 5.97947E+00 | | -46.01 | |

| | | | | | | |
|-------------|-------------|-------------|-------------|---------|---------|--------|
| -5.00 | 350.00 | 11.73 | 13.21 | 15.54 | 0.10360 | 49.95 |
| RIGHT | 7.56037E+00 | -31.92 | 8.95917E+00 | | -43.93 | |
| 0.00 | 350.00 | 13.86 | 14.36 | 17.13 | 0.07901 | 46.67 |
| RIGHT | 9.65461E+00 | -32.24 | 1.02285E+01 | | -41.29 | |
| -90.00 | 355.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 |
| 3.06025E-22 | -98.33 | 6.66925E-11 | 65.99 | | | |
| -85.00 | 355.00 | -26.79 | -4.73 | -4.71 | 0.02112 | 85.65 |
| RIGHT | 8.95792E-02 | -98.18 | 1.13556E+00 | | -113.80 | |
| -80.00 | 355.00 | -14.75 | 1.16 | 1.27 | 0.04168 | 81.20 |
| RIGHT | 3.58455E-01 | -97.73 | 2.23706E+00 | | -113.18 | |
| -75.00 | 355.00 | -7.78 | 4.39 | 4.65 | 0.06094 | 76.58 |
| RIGHT | 7.99509E-01 | -96.99 | 3.24675E+00 | | -112.15 | |
| -70.00 | 355.00 | -3.06 | 6.35 | 6.82 | 0.07791 | 71.75 |
| RIGHT | 1.37748E+00 | -95.99 | 4.06604E+00 | | -110.76 | |
| -65.00 | 355.00 | 0.19 | 7.33 | 8.10 | 0.09146 | 66.72 |
| RIGHT | 2.00115E+00 | -94.81 | 4.55302E+00 | | -109.06 | |
| -60.00 | 355.00 | 2.13 | 7.31 | 8.46 | 0.10044 | 61.52 |
| RIGHT | 2.50250E+00 | -93.62 | 4.54332E+00 | | -107.23 | |
| -55.00 | 355.00 | 2.61 | 5.98 | 7.63 | 0.10379 | 56.11 |
| RIGHT | 2.64468E+00 | -92.88 | 3.90011E+00 | | -105.65 | |
| -50.00 | 355.00 | 0.95 | 2.43 | 4.76 | 0.10061 | 49.98 |
| RIGHT | 2.18366E+00 | -94.23 | 2.59087E+00 | | -105.89 | |
| -45.00 | 355.00 | -5.56 | -7.58 | -3.44 | 0.12389 | 38.19 |
| RIGHT | 1.03256E+00 | -110.06 | 8.18499E-01 | | -124.57 | |
| -40.00 | 355.00 | -4.37 | -2.87 | -0.54 | 0.21638 | 50.39 |
| RIGHT | 1.18460E+00 | 133.11 | 1.40705E+00 | | 108.31 | |
| -35.00 | 355.00 | 4.38 | 3.84 | 7.13 | 0.13436 | 43.15 |
| RIGHT | 3.24427E+00 | 117.64 | 3.04805E+00 | | 102.30 | |
| -30.00 | 355.00 | 7.91 | 5.68 | 9.95 | 0.10892 | 37.55 |
| RIGHT | 4.86759E+00 | 116.78 | 3.76631E+00 | | 103.93 | |
| -25.00 | 355.00 | 8.42 | 4.00 | 9.76 | 0.08843 | 30.76 |
| RIGHT | 5.16384E+00 | 117.63 | 3.10234E+00 | | 106.17 | |
| -20.00 | 355.00 | 5.27 | -5.79 | 5.60 | 0.07793 | 15.04 |
| RIGHT | 3.59368E+00 | 115.99 | 1.00527E+00 | | 98.61 | |
| -15.00 | 355.00 | -7.65 | 1.19 | 1.72 | 0.35433 | -85.82 |
| RIGHT | 8.11850E-01 | 48.65 | 2.24485E+00 | | -51.52 | |
| -10.00 | 355.00 | 6.96 | 9.20 | 11.23 | 0.14880 | 52.66 |
| RIGHT | 4.36219E+00 | -33.58 | 5.64835E+00 | | -51.09 | |
| -5.00 | 355.00 | 12.55 | 12.54 | 15.55 | 0.10380 | 44.98 |
| RIGHT | 8.30135E+00 | -35.06 | 8.29661E+00 | | -46.91 | |
| 0.00 | 355.00 | 14.59 | 13.59 | 17.13 | 0.07901 | 41.67 |
| RIGHT | 1.04992E+01 | -33.01 | 9.35953E+00 | | -42.10 | |
| -90.00 | 360.00 | -999.99 | -999.99 | -999.99 | 0.00000 | 0.00 |
| 3.60514E-22 | -124.21 | 6.83370E-11 | 41.89 | | | |
| -85.00 | 360.00 | -25.38 | -4.53 | -4.50 | 0.02146 | 84.96 |
| RIGHT | 1.05380E-01 | -124.01 | 1.16205E+00 | | -137.80 | |
| -80.00 | 360.00 | -13.37 | 1.32 | 1.47 | 0.04169 | 79.83 |
| RIGHT | 4.20019E-01 | -123.39 | 2.28029E+00 | | -136.90 | |
| -75.00 | 360.00 | -6.46 | 4.50 | 4.84 | 0.05939 | 74.52 |
| RIGHT | 9.31063E-01 | -122.36 | 3.28855E+00 | | -135.41 | |
| -70.00 | 360.00 | -1.80 | 6.38 | 7.00 | 0.07321 | 69.04 |
| RIGHT | 1.59151E+00 | -120.96 | 4.08331E+00 | | -133.39 | |

| | | | | | | |
|--------|-------------|---------|-------------|---------|---------|-------|
| -65.00 | 360.00 | 1.36 | 7.27 | 8.26 | 0.08186 | 63.43 |
| RIGHT | 2.29103E+00 | -119.26 | 4.52440E+00 | -130.90 | | |
| -60.00 | 360.00 | 3.22 | 7.15 | 8.62 | 0.08416 | 57.73 |
| RIGHT | 2.83657E+00 | -117.47 | 4.45917E+00 | -128.10 | | |
| -55.00 | 360.00 | 3.61 | 5.70 | 7.79 | 0.07858 | 51.91 |
| RIGHT | 2.96695E+00 | -116.17 | 3.77338E+00 | -125.42 | | |
| -50.00 | 360.00 | 1.87 | 1.99 | 4.94 | 0.06135 | 45.41 |
| RIGHT | 2.42828E+00 | -117.36 | 2.46324E+00 | -124.38 | | |
| -45.00 | 360.00 | -4.39 | -8.33 | -2.92 | 0.04948 | 32.39 |
| RIGHT | 1.18082E+00 | -135.59 | 7.50995E-01 | -141.85 | | |
| -40.00 | 360.00 | -2.90 | -3.45 | -0.15 | 0.24902 | 42.95 |
| RIGHT | 1.40304E+00 | 119.74 | 1.31712E+00 | 91.72 | | |
| -35.00 | 360.00 | 5.22 | 3.06 | 7.28 | 0.13605 | 37.68 |
| RIGHT | 3.57168E+00 | 103.70 | 2.78526E+00 | 87.71 | | |
| -30.00 | 360.00 | 8.56 | 4.67 | 10.05 | 0.10051 | 32.31 |
| RIGHT | 5.24601E+00 | 103.71 | 3.35252E+00 | 91.04 | | |
| -25.00 | 360.00 | 8.92 | 2.61 | 9.83 | 0.07551 | 25.55 |
| RIGHT | 5.46649E+00 | 105.88 | 2.64354E+00 | 94.84 | | |
| -20.00 | 360.00 | 5.52 | -9.20 | 5.67 | 0.06679 | 9.71 |
| RIGHT | 3.69861E+00 | 105.31 | 6.79169E-01 | 83.33 | | |
| -15.00 | 360.00 | -6.58 | 1.34 | 1.99 | 0.40090 | 88.67 |
| RIGHT | 9.17907E-01 | 27.67 | 2.28591E+00 | -59.55 | | |
| -10.00 | 360.00 | 7.90 | 8.65 | 11.30 | 0.15382 | 47.58 |
| RIGHT | 4.86319E+00 | -38.81 | 5.29952E+00 | -56.36 | | |
| -5.00 | 360.00 | 13.25 | 11.75 | 15.58 | 0.10381 | 39.98 |
| RIGHT | 9.00195E+00 | -38.01 | 7.57772E+00 | -50.04 | | |
| 0.00 | 360.00 | 15.20 | 12.67 | 17.13 | 0.07901 | 36.67 |
| RIGHT | 1.12654E+01 | -33.66 | 8.42160E+00 | -43.09 | | |

AVERAGE POWER GAIN= 2.13320E+00 SOLID ANGLE USED IN
AVERAGING=(2.0000)*PI STERADIANS.

***** DATA CARD NO. 20 EN 0 19 73 1003 -9.00000E+01
0.00000E+00 5.00000E+00 5.00000E+00 0.00000E+00 0.00000E+00

RUN TIME = 0.359