

circle1.py (Page 1 of 1)

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1: #!/usr/bin/env python
2:
3: #-----
4: # circle1.py
5: # Author: Bob Dondero
6: #-----
7:
8: import math
9:
10: #-----
11:
12: def main():
13:
14:     line = input("Enter the circle's radius:\n")
15:     radius = int(line)
16:
17:     diam = 2 * radius
18:     circum = math.pi * float(diam)
19:
20:     print(f'A circle with radius {radius} has diameter {diam}')
21:     print(f'and circumference {circum:.2f}.')
22:
23:     print('Thank you for running the program.')
24:
25: #-----
26:
27: if __name__ == '__main__':
28:     main()

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circleoptions.py (Page 1 of 1)

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1: #!/usr/bin/env python
2:
3: #-----
4: # circleoptions.py
5: # Author: Bob Dondero
6: #-----
7:
8: import math
9:
10: #-----
11:
12: def main():
13:
14:     line = input("Enter the circle's radius:\n")
15:     radius = int(line)
16:
17:     diam = 2 * radius
18:     circum = math.pi * float(diam)
19:
20:     # Multiple arguments:
21:     print('A circle with radius', radius, 'has diameter', diam)
22:     print('and circumference', circum, '.')
23:
24:     # String concatenation:
25:     print('A circle with radius ' + str(radius) + ' has diameter ' +
26:           str(diam))
27:     print('and circumference ' + str(circum) + '.')
28:
29:     # Old (C) style formatting:
30:     print('A circle with radius %d has diameter %d' % (radius, diam))
31:     print('and circumference %.2f.' % circum)
32:
33:     # The format() method:
34:     print('A circle with radius {:d} has diameter {:d}'.
35:           format(radius, diam))
36:     print('and circumference {:.2f}'.format(circum))
37:
38:     # The format() method (shortcut):
39:     print('A circle with radius {} has diameter {}'.
40:           format(radius, diam))
41:     print('and circumference {:.2f}'.format(circum))
42:
43:     # F strings:
44:     print(f'A circle with radius {radius:d} has diameter {diam:d}')
45:     print(f'and circumference {circum:.2f}.')
46:
47:     # F strings (shortcut):
48:     print(f'A circle with radius {radius} has diameter {diam}')
49:     print(f'and circumference {circum:.2f}.')
50:
51:     print('Thank you for running the program.')
52:
53: #-----
54:
55: if __name__ == '__main__':
56:     main()

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circle2.py (Page 1 of 1)

```

1: #!/usr/bin/env python
2:
3: #-----
4: # circle2.py
5: # Author: Bob Dondero
6: #-----
7:
8: import sys
9: import math
10:
11: #-----
12:
13: def main():
14:
15:     try:
16:         line = input("Enter the circle's radius:\n")
17:         radius = int(line)
18:
19:         diam = 2 * radius
20:         circum = math.pi * float(diam)
21:
22:         print(f'A circle with radius {radius} has diameter {diam}')
23:         print(f'and circumference {circum:.2f}.')
24:
25:     except Exception as ex:
26:         print(str(ex), file=sys.stderr)
27:
28:     print('Thank you for running the program.')
29:
30: #-----
31:
32: if __name__ == '__main__':
33:     main()

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circle3.py (Page 1 of 1)

```

1: #!/usr/bin/env python
2:
3: #-----
4: # circle3.py
5: # Author: Bob Dondero
6: #-----
7:
8: import sys
9: import math
10:
11: #-----
12:
13: def main():
14:
15:     try:
16:         line = input("Enter the circle's radius:\n")
17:         radius = int(line)
18:
19:         diam = 2 * radius
20:         circum = math.pi * float(diam)
21:
22:         print(f'A circle with radius {radius} has diameter {diam}')
23:         print(f'and circumference {circum:.2f}.')
24:
25:     except ValueError:
26:         print('Error: Not an integer', file=sys.stderr)
27:
28:     except EOFError:
29:         print('Error: Missing integer', file=sys.stderr)
30:
31:     print('Thank you for running the program.')
32:
33: #-----
34:
35: if __name__ == '__main__':
36:     main()

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circle4.py (Page 1 of 1)

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1: #!/usr/bin/env python
2:
3: #-----
4: # circle4.py
5: # Author: Bob Dondero
6: #-----
7:
8: import sys
9: import math
10:
11: #-----
12:
13: def read_radius():
14:
15:     line = input("Enter the circle's radius:\n")
16:     radius = int(line)
17:     return radius
18:
19: #-----
20:
21: def write_results(radius, diam, circum):
22:
23:     print(f'A circle with radius {radius} has diameter {diam}')
24:     print(f'and circumference {circum:.2f}.')
25:
26: #-----
27:
28: def main():
29:
30:     try:
31:         radius = read_radius()
32:
33:         diam = 2 * radius
34:         circum = math.pi * float(diam)
35:
36:         write_results(radius, diam, circum)
37:
38:     except ValueError:
39:         print('Error: Not an integer', file=sys.stderr)
40:
41:     except EOFError:
42:         print('Error: Missing integer', file=sys.stderr)
43:
44:     print('Thank you for running the program.')
45:
46: #-----
47:
48: if __name__ == '__main__':
49:     main()

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circle5.py (Page 1 of 1)

```

1: #!/usr/bin/env python
2:
3: #-----
4: # circle5.py
5: # Author: Bob Dondero
6: #-----
7:
8: import sys
9: import math
10:
11: #-----
12:
13: def read_radius():
14:
15:     line = input("Enter the circle's radius:\n")
16:     radius = int(line)
17:     return radius
18:
19: #-----
20:
21: def write_results(radius, diam, circum):
22:
23:     print(f'A circle with radius {radius} has diameter {diam}')
24:     print(f'and circumference {circum:.2f}.')
25:
26: #-----
27:
28: def main():
29:
30:     exit_status = 0
31:
32:     try:
33:         radius = read_radius()
34:
35:         diam = 2 * radius
36:         circum = math.pi * float(diam)
37:
38:         write_results(radius, diam, circum)
39:
40:     except ValueError:
41:         print('Error: Not an integer', file=sys.stderr)
42:         exit_status = 1
43:
44:     except EOFError:
45:         print('Error: Missing integer', file=sys.stderr)
46:         exit_status = 1
47:
48:     print('Thank you for running the program.')
49:
50:     return exit_status
51:
52: #-----
53:
54: if __name__ == '__main__':
55:     sys.exit(main())

```