Math Module

- math.ceil(x) Rounds a number *up* to the nearest integer
- math.cos(x) Returns the cosine of a number
- math.degrees(x) Converts an angle from radians to degrees
- math.floor(x) Rounds a number *down* to the nearest integer
- math.log(x) Returns the natural logarithm of a number, or the logarithm of number to base.
- math.pow(a, b) Returns the value of *a* to the power of *b*
- math.radians(x) Converts a degree into radians
- math.sin(x) Returns the sine of a number
- math.tan(x) Returns the tangent of a number

Math Constants

- math.e
- math.inf
- math.pi

Random Module

- seed()
- random.randint(a, b)
- random.random()

String Methods

- word.capitalize() Converts the first character of word into upper case
- word.center(n, c) Centers the string word in n spaces with the optional argument of padding the word with character/string c
- word.count(str) Counts the number of times the substring str appears in the string word
- word.find(str) Finds the first index of the substring str in the string word. If str is not in word, then it returns -1
- word.isalnum() Checks if the string word is alpha-numeric, meaning it only contains letters and numbers
- word.isalpha() Check that the string is *only* alphabetic, meaning it only has letters
- word.isdecminal() Checks if a string is a decimal
- word.lower() Converts the string word into lower case
- word.upper() Converts the string word into upper case
- word.strip() Removes the white space before and after the word

Turtle Methods

- bob = turtle.Turtle() Creates a turtle instance and stores it in variable bob
- bob.forward(distance) Moves the turtle forward by distance

- bob.right(angle) Turn turtle right by angle units
- bob.left(angle) Turn turtle left by angle
- bob.setheading(angle) Set the orientation of the turtle to angle
    - heading 0 => turtle points right
    - heading 90 => turtle points up
    - heading 180 => turtle points left
    - heading 270 => turtle points down
- bob.home() Move the turtle or the origin – the coordinates (0, 0)
- bob.circle(radius) Draw a circle with the given radius
- bob.distance(x, y) Returns the distance from the turtle to the point (x, y)
- bob.penup() Put the pen up, there won't be anything drawn when we move the turtle
- bob.pendown() Put the pen down, drawing resumes
- bob.pencolor(color) sets the pen color to the string color
- turtle.exitonclick() Shut down the turtlegraphics window on mouse click
- bob.goto(x, y) Move the turtle to the coordinates (x, y)

List Methods

- my_list.append(element) adds an element at the end of the list
- my_list.copy() Returns a copy of the list
- my_list.insert(pos, element) Adds an element at the specified position pos
- my_list.pop(pos) Removes the element at the specified position pos, the default value is -1 (the end of the list)
- my_list.remove(element) Removes the first occurrence of the element with the specified value