Cheat Sheet - 🐢 Turtle Graphics

Description:

A built-in Python module that provides a way to create graphics and drawings using a “turtle” that moves around the screen. The turtle draws with the pen it’s holding in its mouth. The center of the canvas is considered to be 0,0. turtles always start at the center of their coordinate plane.

Imports:

```
from turtle import Screen, Turtle
```

Screen Functions:

```
screen = Screen()
```

`setup(width, height)` - used to set the size of the turtle graphics window

`screensize(width, height)` - used to set the size of the drawing space, a.k.a the canvas

`exitonclick()` - close graphics window by clicking on it

Turtle Functions:

```
turtle = Turtle()
```

Pen

`penup()` - set the pen’s state to up (not drawing)

`pendown()` - set the pen’s state to down (drawing)

`pensize(width)` - set the width of the pen’s line

Shape

`shape(new_shape)` - update the turtle’s shape (arrow, blank, circle, classic, square, triangle, or turtle).

`stamp()` - leave an impression of the turtle’s shape behind

Movement

`right(degrees)` - turn the turtle right (clockwise) by number of degrees indicated

`left(degrees)` - turn the turtle left (counterclockwise) by the number of degrees indicated

`forward(distance)` - move the turtle in the direction it’s facing, distance in pixels

`backward(distance)` - move the turtle the opposite direction its facing, distance in pixels

`speed(s)` - the speed the turtle should go, ranges from 0 - 10 (bigger = faster, but 0 is fastest)

`goto(x, y)` - move turtle to x,y position, draws line when pen is down

Shape

`circle(radius)` - draw a circle with given radius, tangent to the direction the turtle is facing

Color

`color(c)` - set the line color of the pen, use either explicit color (e.g. “red”) or a hex code

`fillcolor(c)` - set the fill color of the pen, use either explicit color (e.g. “red”) or a hex code

Fill

`begin_fill()` - use before you want to draw a filled shaped with the turtle

`end_fill()` - use after you are done drawing a filled shape with the turtle

Coordinates

`xcor()` - returns the current x position of the turtle

`ycor()` - returns the current y position of the turtle