Introduction to Computer Programming
CSCI-UA 2
Programming Graphics
Python’s Turtle Module
Turtle Graphics

Turtle is a standard Python module for programming graphics on a Cartesian plane.

The “turtle” is a cursor that moves around a canvas drawing lines and shapes.

Many of the programming concepts we’ve learned so far are applicable to drawing.

We simply need to add some turtle syntax to our vocabulary.
Turtle Graphics
Creating a New Turtle

Import module: `import turtle`

The turtle module introduces two new types: `Turtle` and `Screen`

`turtle.Screen()` creates a window with a canvas for drawing

`turtle.Turtle()` creates an object that does the drawing
“Methods” allow us to modify the turtle and the window objects

- `forward(distance)`
- `backward(distance)`
- `left(angle)`
- `right(angle)`
- `circle(radius)`
- `color()`
- `pensize(width)`
- `begin_fill()`
- `end_fill()`
- `title('Title')`
Turtle Graphics
Attributes

- Location
- Orientation
- Drawing tool
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