

<code>import turtle</code>	<code># need to use this to start the turtle code</code>
<code>turtle.forward(distance)</code>	<code># move turtle forward</code>
<code>turtle.fd(distance)</code>	
<code>turtle.back(distance)</code>	<code># move turtle backwards</code>
<code>turtle.bk(distance)</code>	
<code>turtle.right(angle)</code>	<code># turn turtle right</code>
<code>turtle.rt(angle)</code>	
<code>turtle.left(angle)</code>	<code># turn turtle left</code>
<code>turtle.lt(angle)</code>	
<code>turtle.penup()</code>	<code>pick the pen up and stop drawing</code>
<code>turtle.pendown()</code>	<code>put the pen down and start drawing</code>
<code>turtle.color('colour name')</code>	<code># colour name: red, yellow, orange, green, blue, cyan, magenta,</code> <code># indigo, violet, black, grey</code> <code># may also be a RRGGBB Hex number such as #F0D4A7</code>
<code>turtle.clear()</code>	<code># clear the screen</code>
<code>turtle.reset()</code>	<code># reset the turtle and clear the screen</code>
<code>turtle.undo()</code>	<code># undo one step on the turtle</code>
<code>turtle.speed(velocity)</code>	<code># how fast you want to move the turtle (1 slow, 100 fast)</code>
<code>turtle.home()</code>	<code># move the turtle back to the 0,0 position</code>
<code>turtle.setheading(degrees)</code>	<code># turn the turtle to face a particular direction. 0 East, 90 North,</code> <code># 180 West, 270 South</code>
<code>turtle.pensize(width)</code>	<code># set width of pen</code>
<code>turtle.width(width)</code>	
<code>turtle.hideturtle()</code>	<code># Invisible turtle</code>
<code>turtle.shape('turtleshape')</code>	<code># change turtleshape to 'classic' or 'turtle'</code>

More commands: <https://docs.python.org/3.3/library/turtle.html>

<code>fred = Turtle()</code>	<code># Create a turtle called Fred</code>
<code>fred.forward(70)</code>	<code># Move Fred forward by 70 units</code>

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for counter in range(10):
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```
    turtle.forward(100)
```

```
    turtle.rt(36)           # draw a decagon (10 sided shape)
```

```
for count in range(50):
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```
    turtle.undo()          # This will undo fifty steps made by the turtle
```

Octagon is 8 sided shape 360 degrees in a full turn

So $360 / 8 = 45$ degrees turn for each side

Triangle is 3 sided Turn by $360 / 3 = 120$ degrees

Hexagon is 6 sided Turn by $360 / 6 = 60$ degrees

Pentagon is 5 sided Turn by $360 / 5 = 72$ degrees

How could you draw a circle?

Exercise:

Draw an Indigo triangle

Exercise:

Draw the following shapes in a line (with no line shown between each shape):

- a triangle (red),
- a square (blue),
- a pentagon (green)

Exercise

On paper plot out a “squared” version of your initials.

Now write the Python turtle steps to draw your initials in a line on screen.