Turtle Drawing!

Draw your own pictures through simple programming concepts

The Power Turtle environment is a canvas with a turtle (represented as a △). You talk to the turtle by typing commands in the prompt to the right, and the turtle responds. When the turtle's pen is down, it draws a line when it moves.

Basic Commands

Commands	Description	Usage Examples

forward
back
left
right
	Move forward
	Move backwards
	Turn left
	Turn right
		`(forward 50)`
		`(back 25)`
		`(turn 90)`
		`(left 45)`

Example Commands	Output

`(forward 100)`
`(right 90)`
`(forward 100)`	
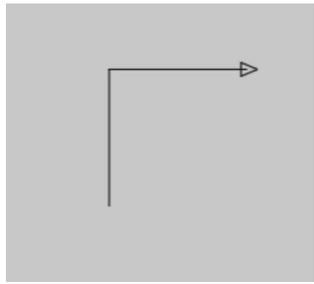
`(forward 100)`
`(right 120)`
`(forward 100)`
`(right 120)`
`(forward 100)`	
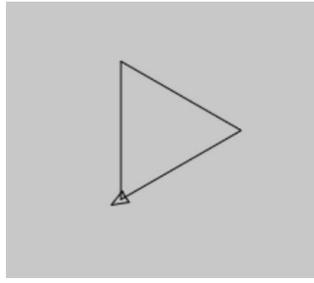
Cleaning, Resetting, and More Movement Commands

Commands	Description	Usage Examples

clean
home
pendown
	Clean the screen
	Send turtle home
	Tell turtle to put pen
		`(clean)`
		`(home)`
		`(pendown)`

	down	
penup	Tell turtle to pick pen up	`(penup)`
setxy	Teleport turtle to a position	`(setxy -100 100)`

Repeat

Commands	Description	Usage Examples
repeat	Repeat a block of commands a certain number of times	`(repeat 4 #(do (forward 100)` `            (right 90)))`

Example Commands	Output
`(repeat 4 #(do (forward 100)` `            (right 90)))`	
`(repeat 8 #(do (forward 100)` `            (right 45)))`	
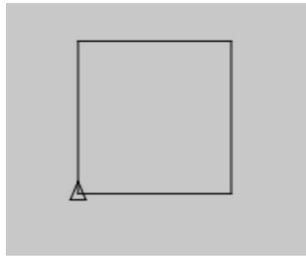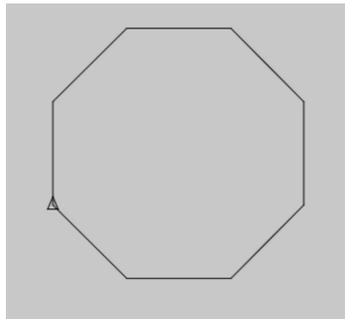
Color

Commands	Description	Usage Examples

color	Change the color of the turtle's pen.
	
	A single number is a greyscale value (0 =
		`(color [255 0 0])`
		`(color [0 255 0])`
		`(color [0 0 255])`
		
		`(color [0])`

black, 255 = white)	(color [127])
Three numbers are color values for red, green, blue	

Example Commands	Output
``` (color [255 0 0]) (repeat 8 #(do (forward 100) (right 45))) ```	
``` (color [255 255 0]) (right 90) (repeat 8 #(do (forward 100) (right 144))) ```	
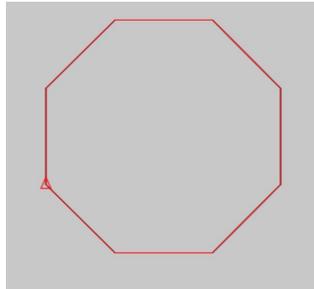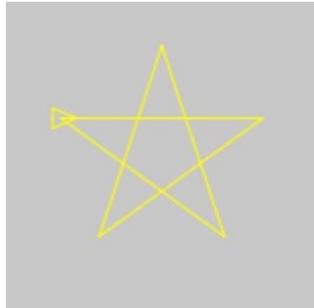
More?

Try creating functions to automate commands:	```
	(defn square
	  [length]
	  (repeat 4 #(do (forward length)
	(right 90))))
	
	(square 30)
	``

And use advanced language features to accomplish more	``` (map square [40 50 60]) (map square (range 10 80 10)) ```

To continue drawing / programming with more lessons, visit:
http://timothypratley.github.io/power-turtle