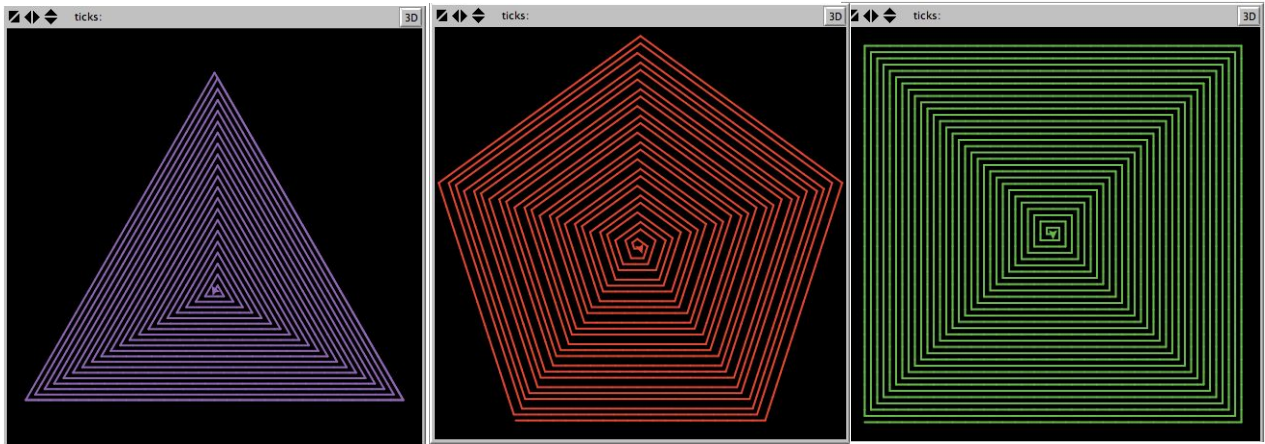




## CS108L Computer Science for All Module 2 Intro Spiraling Geometry using Repeat Loops



In this assignment you will create at least three geometric spiraling shapes. Each spiral needs a minimum of 20 lines. There is a simple rule to figure out the angle the turtle needs to turn to create the shape (the interior angle for the shape):

$$\text{Angle used} = 180 - \frac{360}{\text{number of sides}}$$

### Basic Setup:

- “Setup” button that clears the interface and creates a turtle.
- “Go” button that initializes the spiral pattern.
- Use a variable to store the number of steps turtles need to move.
- Use a variable to store the angle turtles need to turn.
- Each shape must have its own procedures.

Module 3: Spiraling Geometry using Repeat Loops (20 Points Total)		
Done	Points	Task
	2	<p>A:</p> <ul style="list-style-type: none"><li>• Submit one file to your instructor: NetLogo source code with the file name: <code>M2.firstname.lastname.nlogo</code>.</li><li>• The first few lines on the code tab are comments including your name, the date, your school, and the assignment name.</li></ul>



	3	B: <ul style="list-style-type: none"><li>• Include appropriate in-line comments.</li></ul>
	3	C: <ul style="list-style-type: none"><li>• Include a detailed Info tab.</li></ul>
	4	D: <ul style="list-style-type: none"><li>• Each shape has its own procedure (in the case of using arguments, if you have a procedure that will draw multiple geometric patterns depending on its argument values, that is fine).</li><li>• All procedures are called in the “Go” button’s procedure.</li></ul>
	4	E: <ul style="list-style-type: none"><li>• Variables must be declared and initialized appropriately.</li></ul>
	4	F: <ul style="list-style-type: none"><li>• At least one procedure must use at least one argument. This procedure does not need to be used for the entire pattern (like just drawing a line of ‘x’ length) but may be (it is possible to use this method to make multiple shapes just by passing different values to the procedure).</li></ul>
	1	G: <ul style="list-style-type: none"><li>• (Extra Credit) Use a repeat loop to change the turtle’s color to 100 different shades using a variable.</li><li>• Change the turtle’s pen-size multiple times.</li></ul>
	1	H: <ul style="list-style-type: none"><li>• (Extra Credit) Add an additional procedure that creates a spiraling circle. Create an “ExtraCredit2” button that will execute the spiral.</li></ul>