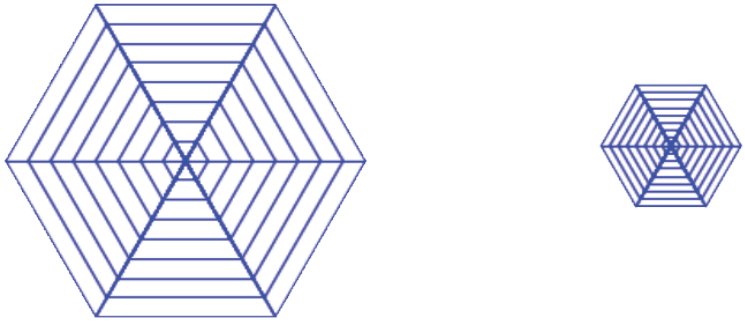
Challenge

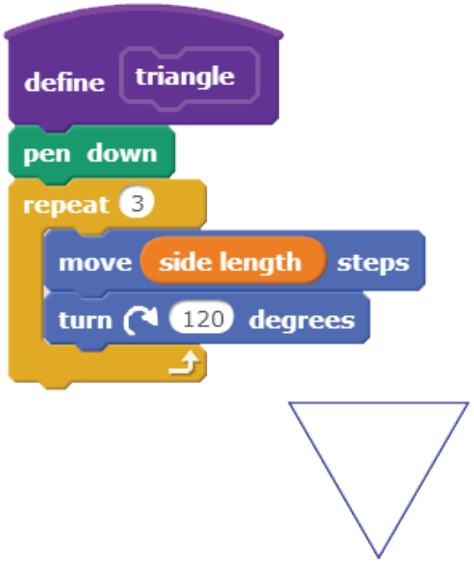
- Make a block that creates and defines an octagon.
- Make a block that creates and defines a polygon spiral

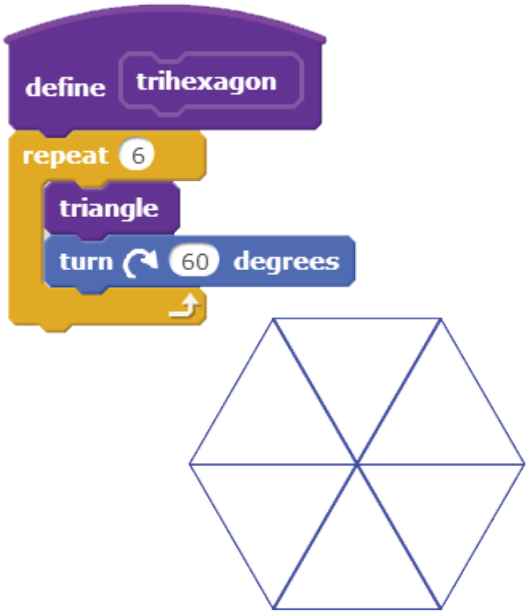
Spider Web

These spider webs were created using variables with sliders and modularization.



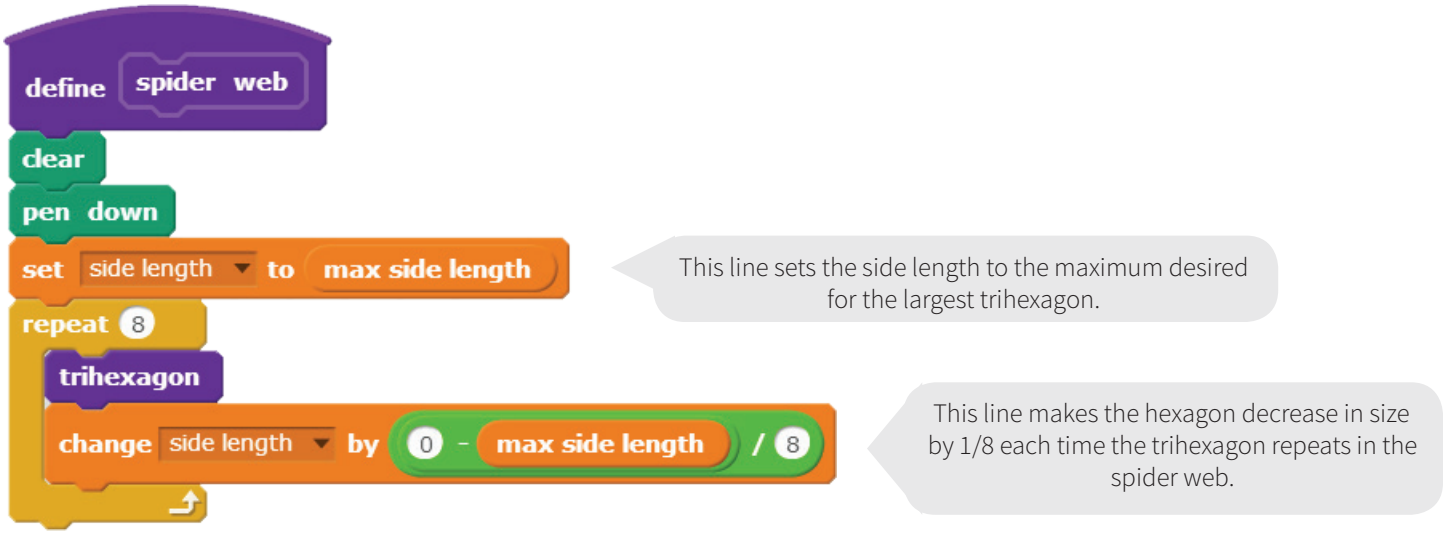
1. Open a new Scratch file. Recreate these scripts. One defines a block for **triangle**. The other uses **triangle** to create and define **trihexagon**, a hexagon made of six triangles.





2. Create a variable for **side length** and another for **max side length**. Create a slider for each.
3. These variables for **side length** and for **max side length** allow you to vary the size of the spider web.

4. Write a script that uses **trihexagon** to create and define **spider web**.



5. Look closely at the block shown here.

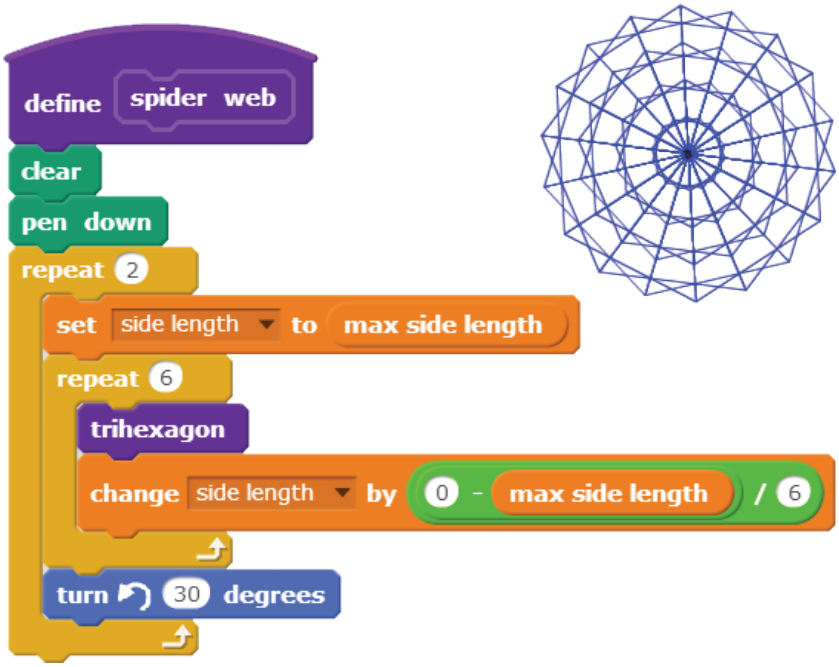
6. It is created using the **subtraction** and **division** blocks from the **OPERATORS** category. The **subtraction** block is dropped into the first part of the **division** block. Why do we need to subtract from zero? What happens if we don't?

7. Create and define a block for **spider web**. Test your script. Does it work? The number 8 is used twice in this script. What happens if the number 8 is changed to another number? What if the repeat input is not the same number as the divisor?

Challenge

What does the spider web script at the right do?

- How can you change it to draw a 20 point star like the one shown?



Talk About

- How is modularization helpful and important in Scratch?
- Look back at previous scripts you created. Could any of those scripts be made simpler by using modularization?

