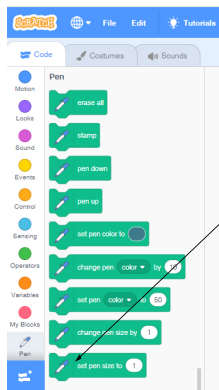


# Scratch Project Using the Pen Tool

Here is a simple project using the Pen Tool.

Try this and see if you can get it to work. Don't forget to name your project and share it on Scratch.

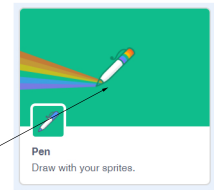
Then tweak the repeats and angles to create your own geometric designs.



You need to launch the Pen Tool in Scratch first.

You do this by clicking on the Add Extension icon on the bottom left of the Scratch screen.

Then click the Pen extension.



Here is the code for a simple square.

Set your start position.

Clear all previous drawings.

Set the pen colour.

Set the size of the line you will draw.

Put down the pen ready to draw.

Show the sprite in case it was hidden by the last user.

Repeat 4 times (a square)

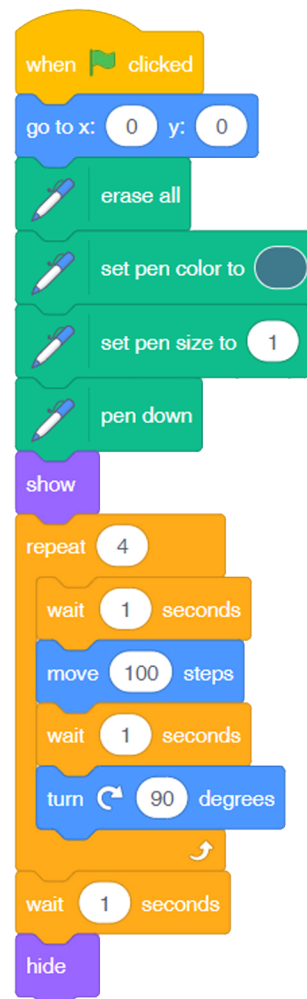
Wait (so you can see what's happening)

Move forward.

Wait again.

Turn 90°. ( $360 \div 4$ )

Once the Repeat is complete wait and then hide the sprite.



Here is the code for a simple triangle.

Set your start position.

Clear all previous drawings.

Set the pen colour.

Set the size of the line you will draw.

Put down the pen ready to draw.

Show the sprite in case it was hidden by the last user.

Repeat 3 times (a triangle)

Wait (so you can see what's happening)

Move forward.

Wait again.

Turn  $120^\circ$ . ( $360 \div 3$ )

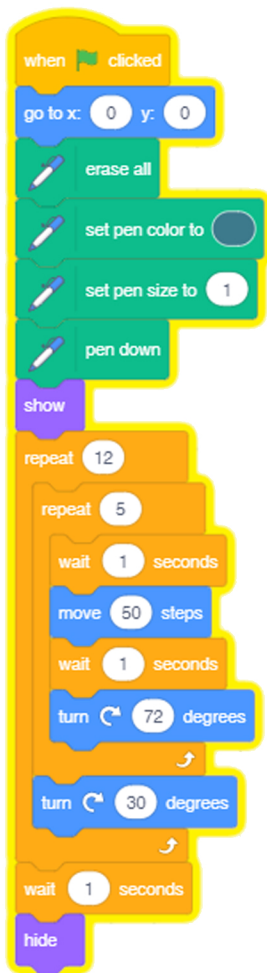
Once the Repeat is complete wait and then hide the sprite.



Now try some more regular shapes.

Remember the angle will be  $360^\circ$  divided by the number of sides.

Also you may have to pick a new starting position of side length.



Here is the code for a repeated pentagon.

Read through the code blocks .

Can you see the relationship between the number of rotations and  $360^\circ$  for the finished pattern?

Experiment with these two values to create your own unique patterns.

