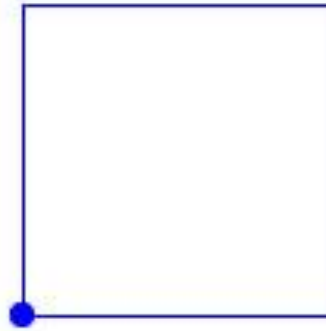


Draw squares with Scratch

Let's draw a square using the Scratch coding language.

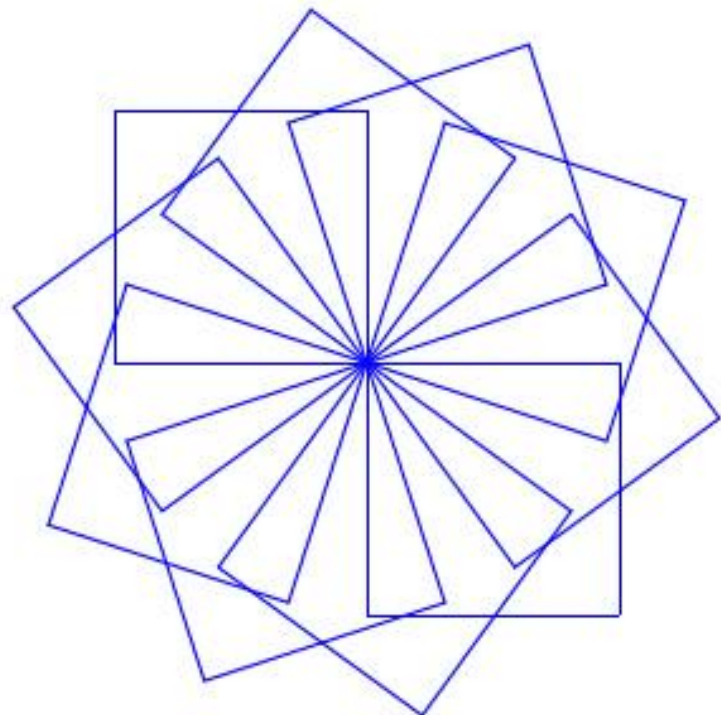
Go to scratch.mit.edu and click on Create. Compose the code below.

```
pen down
repeat 4
  move 100 steps
  turn 90 degrees
```



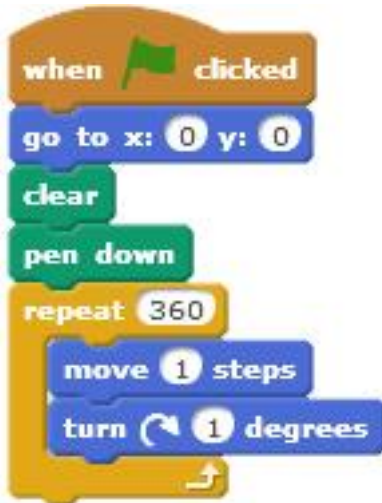
Now edit and run the code to get this pattern.

```
pen down
repeat 10
  repeat 4
    move 100 steps
    turn 90 degrees
  turn 36 degrees
```

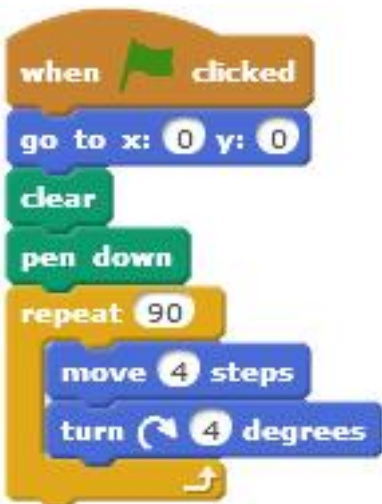


Draw circles with Scratch

Enter this code to draw a circle.



Enter this code to draw a circle faster.



Make a block with Scratch

Let's create a new block called

draw circle

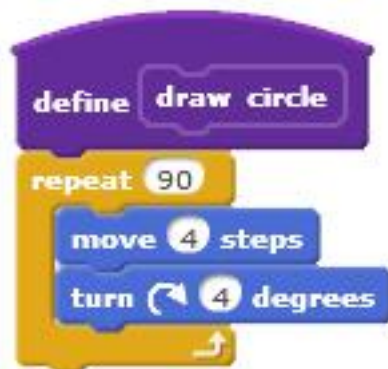
- in the **Scripts** menu, click on **More Blocks**
 - click on **New Block**
 - in the dialogue box that pops up, type "draw circle" for the name of the new block



- click OK – **define: draw circle** will appear in the coding window



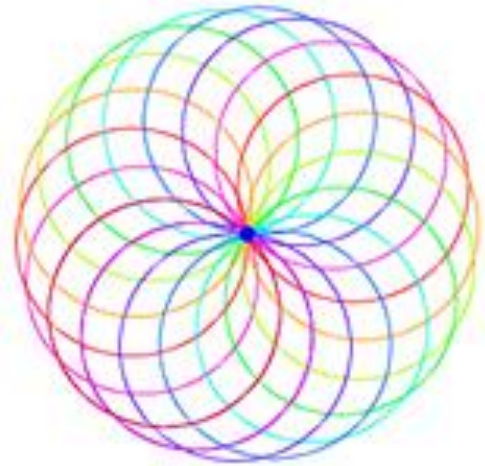
- drag the repeat block that draws a circle and place it as shown below



Lots of squares, in colour! (with Scratch)

Edit the code below to draw a squares pattern instead.

```
when green flag clicked
  go to x: 0 y: 0
  clear
  pen down
  repeat 20
    draw circle
    turn 20 degrees
    set pen color to pick random 1 to 256
```



```
define draw circle
  repeat 90
    move 4 steps
    turn 4 degrees
```

[from Start a Math + Coding Club ... <http://researchideas.ca/documents/math-coding-club.pdf>]