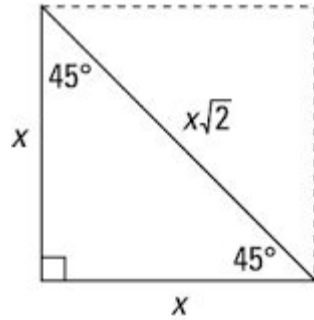


Lesson 4

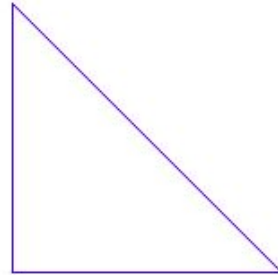
Variables & Coloring

A dark blue diagonal gradient bar that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

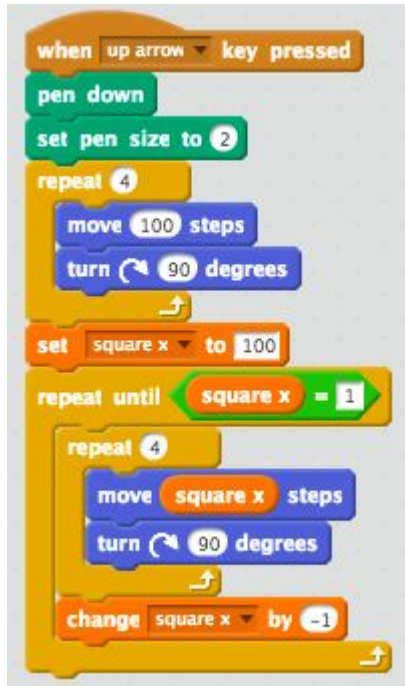
Checkpoint 1 :



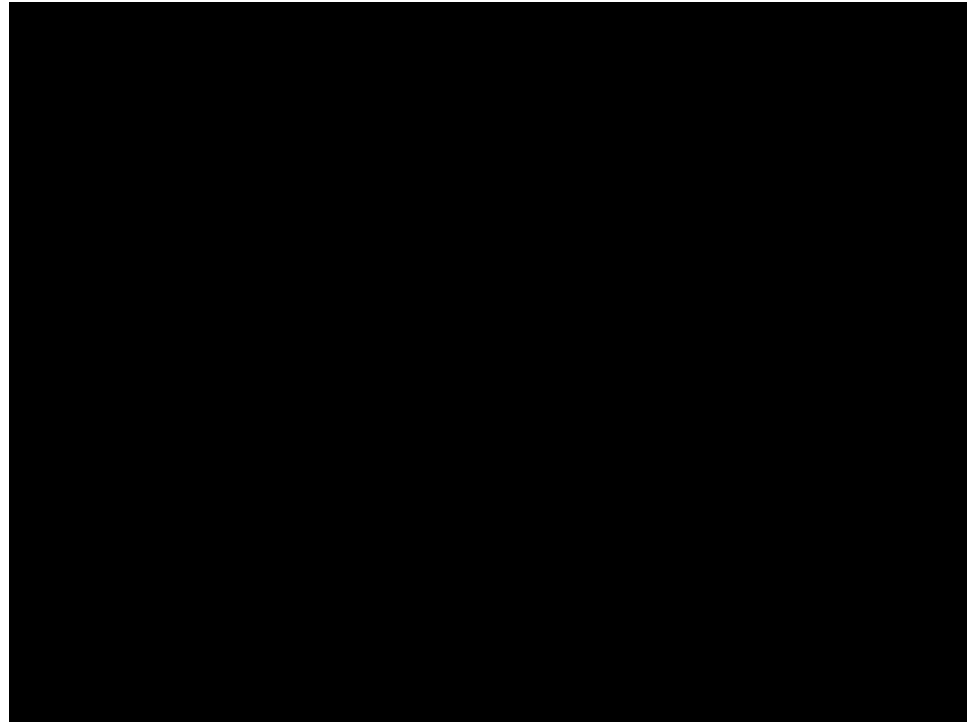
```
set x to 150
move x steps
turn 135 degrees
move x * sqrt of 2 steps
turn 135 degrees
move x steps
turn 90 degrees
```



Checkpoint 2 :

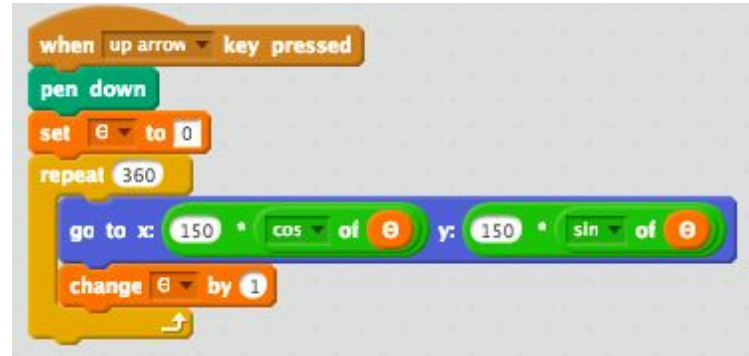


Checkpoint 3 :



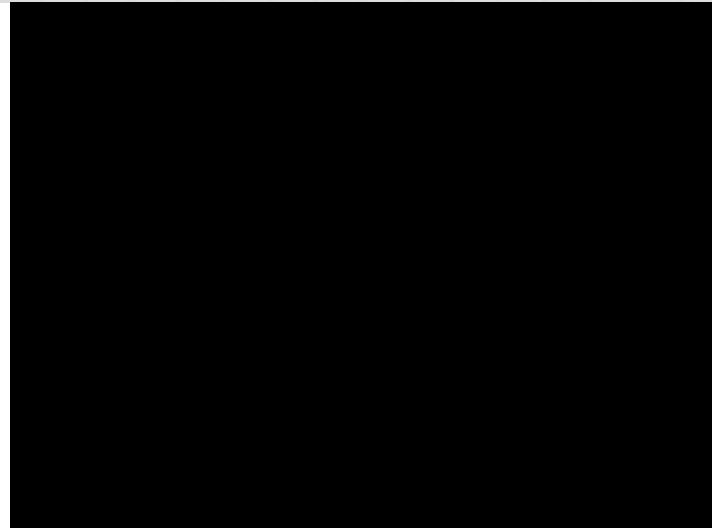
Checkpoint 4 :

Your coded should look like this:

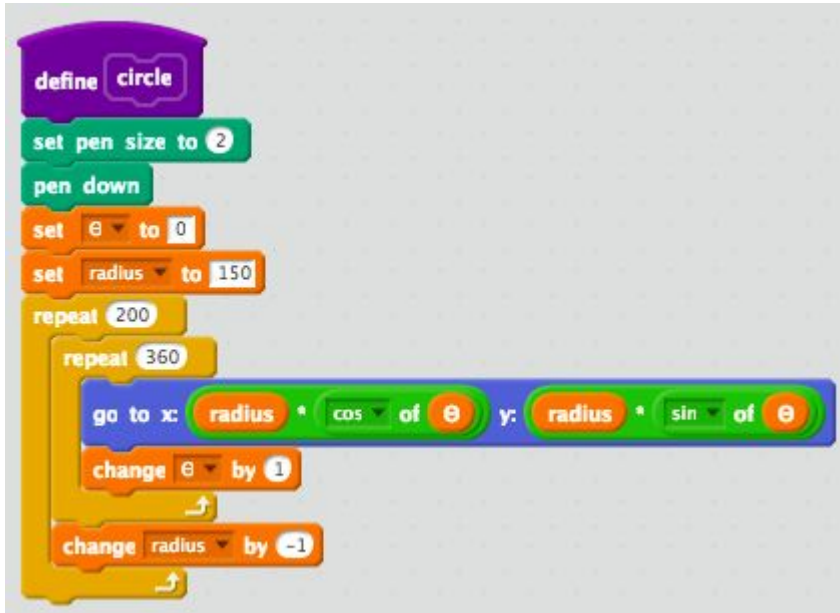


```
when up arrow key pressed
  pen down
  set theta to 0
  repeat 360
    go to x: 150 * cos of theta y: 150 * sin of theta
    change theta by 1
```

The image shows a Scratch script for drawing a circle. It starts with a 'when up arrow key pressed' event block. The first block is 'pen down'. The second block is 'set theta to 0'. The third block is a 'repeat' loop with 360 iterations. Inside the loop, there are two blocks: 'go to x: 150 * cos of theta y: 150 * sin of theta' and 'change theta by 1'. The 'go to' block uses the 'cos' and 'sin' functions from the 'math' category. The 'change' block uses the 'theta' variable from the 'math' category.



Checkpoint 5 :





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