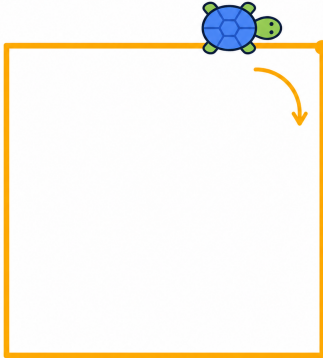


Draw a Square with Turtle Graphics



Draw a square by repeating forward(100) and right(90) four times.

STEPS

1. Open the lab (see Materials): "Try It Now".
2. Create monty with `monty = turtle.Turtle()`.
3. Type `monty.forward(100)`, then on a new line: `monty.right(90)`.
4. Repeat three more times. Run to check the square.

STRETCH GOAL

Use `forward(50)` to draw a smaller square inside.

Solution

HINTS

- A turtle always turns relative to the direction it is currently facing, not relative to the screen -- `right(90)` is always a quarter turn from wherever it is already pointing.
- Four equal sides and four equal 90-degree turns is exactly what makes a shape a square; the same forward/right pair just repeats.
- If the last corner does not line up with the first, check that every `right(90)` actually ran -- a skipped or extra turn is the most common bug.

STEPS

1. Import turtle and create one Turtle instance.
2. Call `forward(100)` then `right(90)` four separate times, one after another -- no loop needed for a shape this small.
3. After the fourth turn, the turtle faces its original direction again and the four corners meet, closing the square.
4. For the stretch goal, repeat the same four-step pattern with a shorter forward distance (e.g. 50) to draw a smaller square, starting from wherever the turtle currently sits.

```
import turtle
monty = turtle.Turtle()
monty.shape('turtle')

monty.forward(100)
monty.right(90)

monty.forward(100)
monty.right(90)

monty.forward(100)
monty.right(90)

monty.forward(100)
monty.right(90)
```

See also: Sample Turtle Graphics Program (Chapter 14, Computational Thinking, Scratch & Python): <https://dmccreary.github.io/learning-python/python-labs/02-simple-square/> -- this card's solution matches that lab's own reference code exactly.