

How to draw spiral square and star in Python Turtle?

Spiral figures are made by reducing the length of side by a fixed number in each iteration. Following are the steps that you must follow to draw any spiral figure-

1. Choose a length of the side of a figure and assign it to a variable `side`. For example, side of a figure is 100 units.

```
side = 100
```

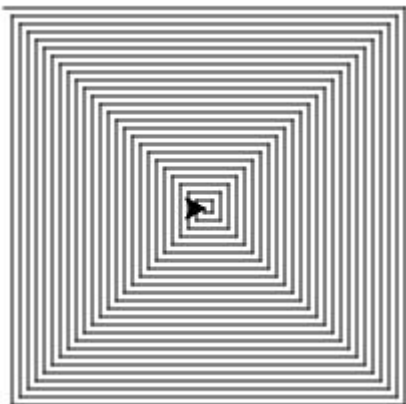
2. Run a `for` loop for a considerable times and in that loop use `forward()` and `right()` function of turtle module. Pass the side variable to forward() function and pass the value of an exterior angle of a figure to right() function. After that, reduce the length of the side by a fixed number.

```
for i in range(100):  
    t.forward(side)  
    t.right(exteriorAngle)  
    side = side - 2
```

Draw spiral square in Python Turtle

```
#Python program to draw spiral square in turtle programming  
import turtle  
  
t = turtle.Turtle()  
side = 200  
for i in range(100):  
    t.forward(side)  
    t.right(90) #Exterior angle of a square is 90 degree  
    side = side - 2
```

Output of the above program



Draw spiral star in Python Turtle

#Python program to draw spiral star in turtle programming

```
import turtle
```

```
t = turtle.Turtle()
```

```
side = 200
```

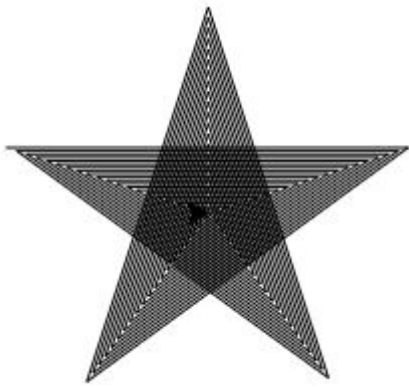
```
for i in range(100):
```

```
    t.forward(side)
```

```
    t.right(144) #Exterior angle of a star is 144 degree
```

```
    side = side - 2
```

Output of the above program



Draw spiral triangle in Python Turtle

#Python program to draw spiral triangle in turtle programming

```
import turtle
```

```
t = turtle.Turtle()
```

```
side = 200
```

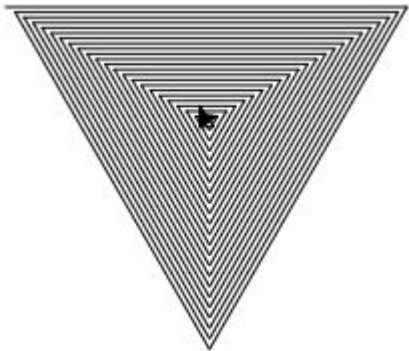
```
for i in range(70):
```

```
    t.forward(side)
```

```
    t.right(120) #Exterior angle of a triangle is 120 degree
```

```
    side = side - 3
```

Output of the above program

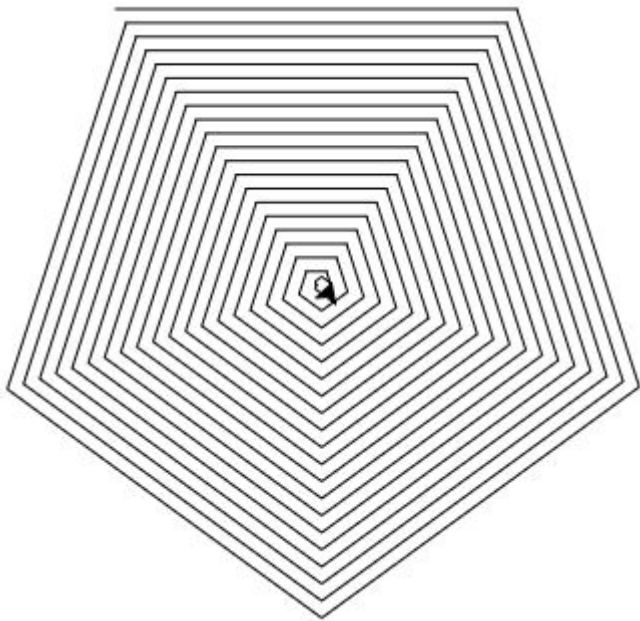


Draw spiral pentagon in Python Turtle

```
#Python program to draw spiral pentagon in turtle programming
import turtle

t = turtle.Turtle()
side = 200
for i in range(104):
    t.forward(side)
    t.right(72) #Exterior angle of a pentagon is 72 degree
    side = side - 2
```

Output of the above program



Draw spiral polygon in Python Turtle

```
#Python program to draw spiral polygon in turtle programming
import turtle

t = turtle.Turtle()
numberOfSides = int(input('Enter the number of sides of a polygon: '))
lengthOfSide = int(input('Enter the length of a side of a polygon: '))
exteriorAngle = 360/numberOfSides
for i in range(200):
    t.forward(lengthOfSide)
    t.right(exteriorAngle)
    lengthOfSide = lengthOfSide - 0.5
```

Output of the above program

Enter the number of sides of a polygon: 9
Enter the length of a side of a polygon: 100

