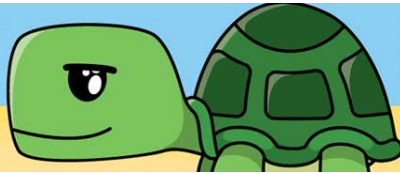


**Python
for
Kids**













```
import turtle
t=turtle.Turtle()
t.forward(100)
```



Lesson 5: Turtle Shapes

Summary:

Code Instruction	What it does
1 <code>t=turtle.Turtle()</code>	Set turtle costume as a small arrow shape 
2 <code>t=turtle.Turtle('classic')</code> or <code>t=turtle.Turtle()</code> <code>t.shape('classic')</code>	Set turtle costume as a small arrow shape 
3 <code>t=turtle.Turtle('turtle')</code> or <code>t=turtle.Turtle()</code> <code>t.shape('turtle')</code>	Set turtle costume as a turtle shape 
4 <code>t=turtle.Turtle('circle')</code> or <code>t=turtle.Turtle()</code> <code>t.shape('circle')</code>	Set turtle costume as a circle shape 
5 <code>t=turtle.Turtle('square')</code> or <code>t=turtle.Turtle()</code> <code>t.shape('square')</code>	Set turtle costume as a square shape 

<p>6</p> <pre>t=turtle.Turtle('triangle')</pre> <p>or</p> <pre>t=turtle.Turtle() t.shape('triangle')</pre>	<p>Set turtle costume as a triangle shape</p> 
<p>7</p> <pre>t=turtle.Turtle('arrow')</pre> <p>or</p> <pre>t=turtle.Turtle() t.shape('arrow')</pre>	<p>Set turtle costume as an arrow shape</p> 
<p>8</p> <pre>t.shapesize(value) t.shapesize(1) t.shapesize(3)</pre>	<p>Set the size value of the turtle shape</p> 
<p>9</p> <p>a) <code>t.shapesize(value1,value2)</code></p> <p>Example</p> <pre>t.shape('circle') t.shapesize(1,3)</pre>	<p>Set width value=value1 and length value=value2</p> 
<p>10</p> <pre>t.shapesize(value1,value2,value3)</pre> <p>Example</p> <pre>t.turtle('square') t.shapesize(2,2) t.shapesize(2,2,10)</pre>	<p>Set width value=value1, length value=value2 and value3 determines the width of the shape's outline</p> 
<p>11</p> <pre>t.sharefactor(value)</pre>	<p>Distorts the image shape, value should be between -1 and 1</p>

Example

```
t.shape('square')  
t.shapesize(3)  
t.shearfactor(0.4)
```



Keep in mind!

With free of charge Trinket software:

Options 2-7 of Summary work only with two lines

Options 8, 9, 10, 11 work only with Pygame Trinket option, which costs \$3 (USA) per month. In this case at the end of the program you have to add the following line

```
input()
```



Python + Math

Code Output for Kids



```
import turtle

t=turtle.Turtle('square')
t.color('red')
t.shapesize(5)
```



```
import turtle

t=turtle.Turtle('circle')
t.color('green')
t.shapesize(5)
```



```
import turtle

t=turtle.Turtle('turtle')
t.color('brown')
t.shapesize(5)
```



```
import turtle

t=turtle.Turtle('turtle')
t.color('grey')
t.shapesize(3)
t.up()
t.goto(50,0)
t.setheading(45)
t.stamp()
t.shapesize(3)
t.goto(-50,0)
t.color('blue')
t.setheading(135)
t.stamp()
```



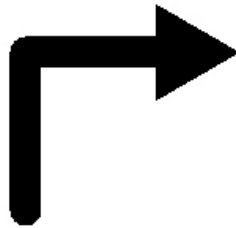
```
import turtle

t=turtle.Turtle('square')
t.color('grey')
t.shapesize(3)
t.up()
t.forward(50)
t.stamp()
t.fd(50)
t.color('blue')
t.stamp()
t.fd(50)
t.color('yellow')
t.stamp()
t.fd(50)
t.color('violet')
t.stamp()
```



```
import turtle

t=turtle.Turtle('triangle')
t.hideturtle()
t.color('black')
t.penup()
t.goto(0,-50)
t.pensize(20)
t.pendown()
t.setheading(90)
t.fd(100)
t.right(90)
t.fd(100)
t.showturtle()
t.shapesize(3)
```



LESSON 5

To see examples, images, and challenges
www.python.kidsgo.ca



1. **Example #1** (rectangle with square shape)

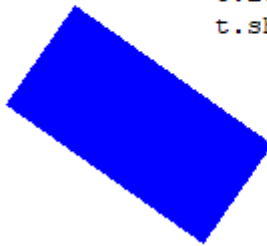
```
import turtle
t=turtle.Turtle('square')
t.color('blue')
t.shapesize(2,5)
```



```
import turtle
t=turtle.Turtle('square')
t.color('blue')
t.shapesize(6,3)
```



```
import turtle
t=turtle.Turtle('square')
t.color('blue')
t.left(55)
t.shapesize(6,3)
```



2. **Example #2** (Draw snowflake).

```
import turtle
t=turtle.Turtle('square')
t.color('blue')
t.shapesize(6,1)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
```



```
import turtle
t=turtle.Turtle('circle')
t.color('blue')
t.shapesize(6,1)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
```



3. Example #3 (Snowflakes)

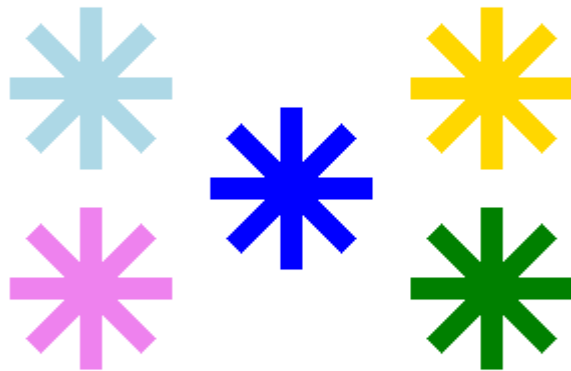
```
import turtle
t=turtle.Turtle('square')
t.up()
t.color('blue')
t.shapesize(4,0.5)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()

t.goto(100,50)
t.color('gold')
t.setheading(0)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()

t.goto(-100,50)
t.color('lightblue')
t.setheading(0)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()

t.goto(-100,-50)
t.color('violet')
t.setheading(0)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()

t.goto(100,-50)
t.color('green')
t.setheading(0)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
t.right(45)
t.stamp()
```



4. Example #4 (Nice Face)

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

#face
t.color('orange','orange')
t.begin_fill()
t.circle(200)
t.end_fill()

#Mouth and Eyes
t=turtle.Turtle('triangle')
t.penup()
t.goto(-70,130)
t.right(90)
t.color('white')
t.shapesize(4)
t.stamp()
t.goto(-10,130)
t.stamp()
t.goto(50,130)
t.stamp()
t.goto(50,280)
t.left(180)
t.stamp()
t.goto(-50,280)
t.stamp()

#Hat
t=turtle.Turtle('square')
t.color('black')
t.penup()
t.goto(0,400)
t.shapesize(3,12)
```

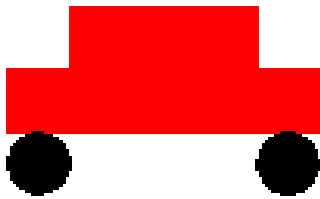


Challenges: write codes to create the following geometry shapes with circle code:

1. Expected output



2. Expected output



3. Expected output



4. Expected output (Choose colour black and grey)



5. Expected output



6. Expected output

