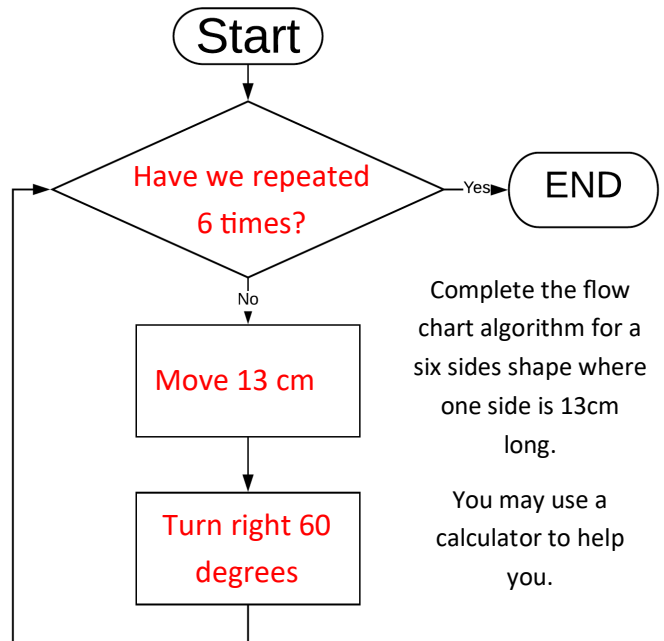
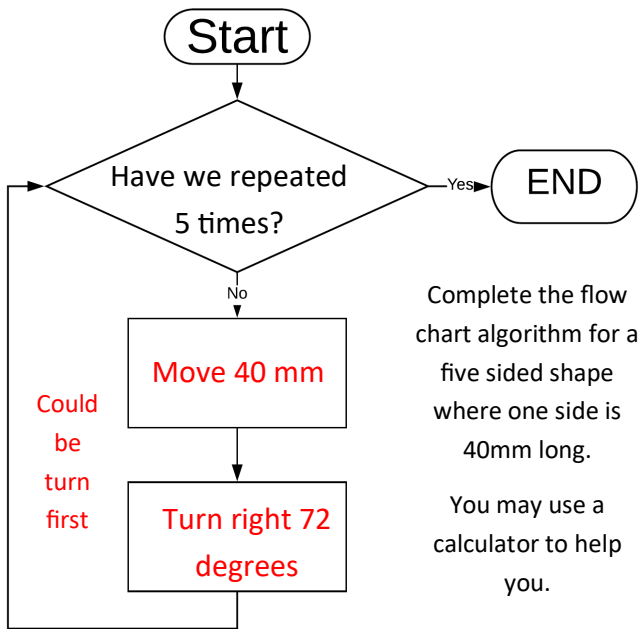


Section 6 Understanding Loops

Name	Class

Draw lines to match the programming to the shape it draws.



when d key pressed

```

    pen down
    repeat 10
      move 20 steps
      wait 0.3 secs
      turn 90 degrees
      wait 0.3 secs
    pen up
  
```

Circle the bug in this code. Why is it a bug?

```

    pen down
    repeat 4
      wait 1 secs
      move 60 steps
      wait 1 secs
      turn 90 degrees
    pen up
  
```

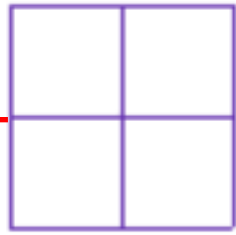
Circle the bug in this code. Why is it a bug?

Section 7 Nested Loops

Top code block

```

pen down
repeat 4
  turn 90 degrees
  repeat 4
    move 30 steps
    turn 90 degrees
  pen up
  
```



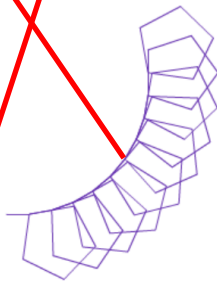
```

pen down
repeat 10
  move 20 steps
  turn 10 degrees
  repeat 5
    move 40 steps
    turn 72 degrees
  pen up
  
```



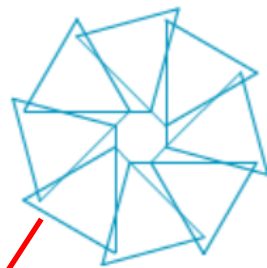
```

pen down
repeat 20
  move 5 steps
  repeat 5
    move 20 steps
    turn 72 degrees
  pen up
  
```



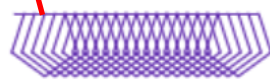
```

pen down
repeat 8
  change pen color by 10
  move 10 steps
  turn 45 degrees
  repeat 3
    move 50 steps
    turn 120 degrees
  pen up
  
```



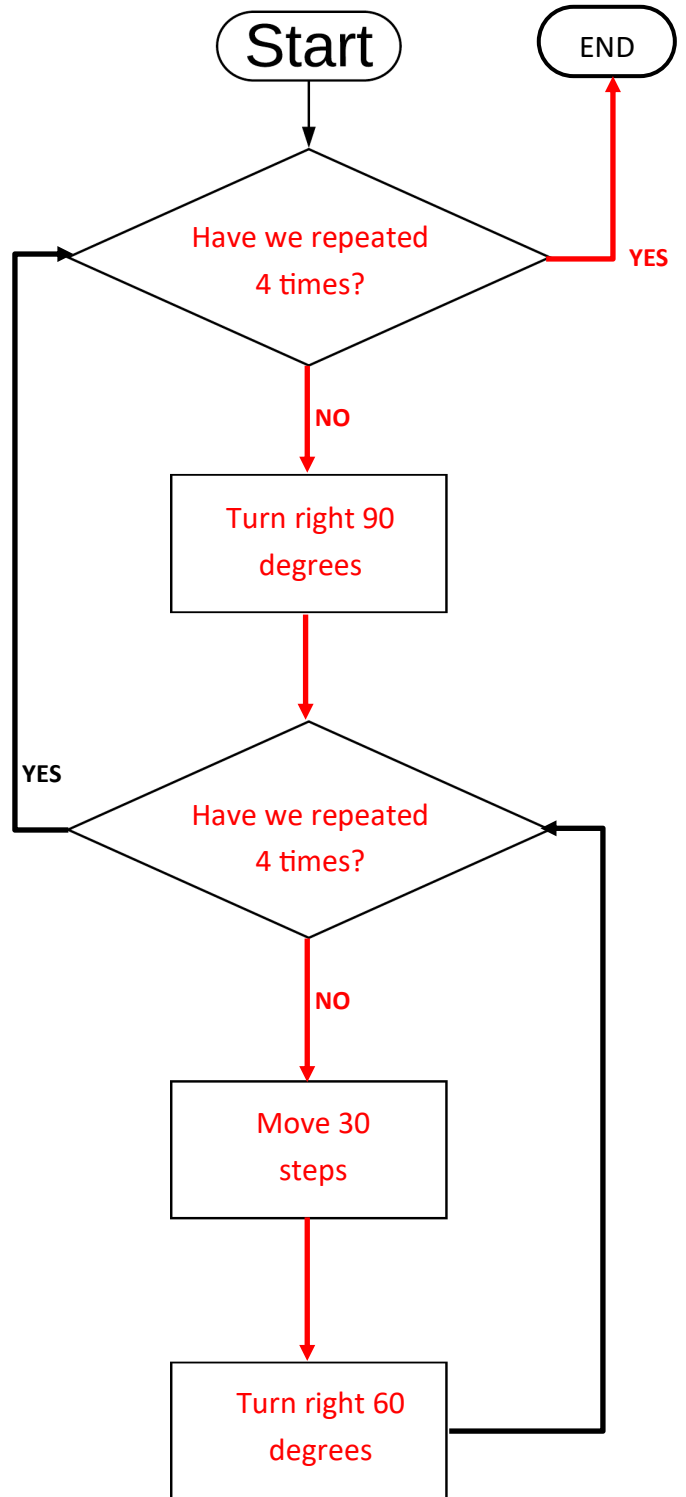
```

pen down
repeat 8
  repeat 3
    move 50 steps
    turn 120 degrees
  move 10 steps
  turn 45 degrees
  pen up
  
```



Draw a line connecting the nested loop code to the shape it draws.

Name	Class
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Turn the top code block into a flowchart algorithm.

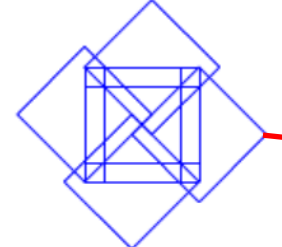
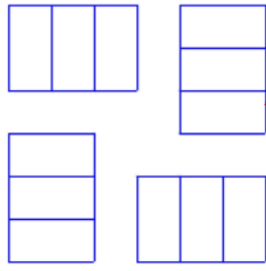
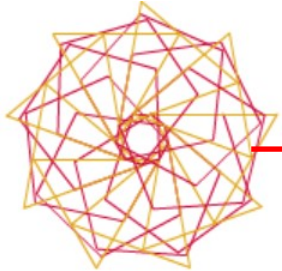
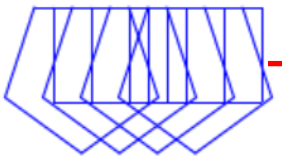
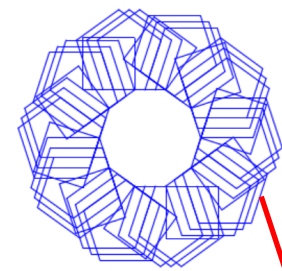
Section 8 Simple Procedures

Name	Class
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Every block of code below uses these four procedures

<pre> define Triangle pen down repeat 3 move 70 steps turn 120 degrees pen up </pre>	<pre> define Square pen down repeat 4 move 50 steps turn 90 degrees pen up </pre>	<pre> define Pentagon pen down repeat 5 move 50 steps turn 72 degrees pen up </pre>	<pre> define Hexagon pen down repeat 6 move 50 steps turn 60 degrees pen up </pre>
--	---	---	--

Match the code blocks below to the shapes that they draw and the written algorithm



```

repeat 4
  repeat 2
    Square
    move 25 steps
  turn 90 degrees

repeat 4
  Pentagon
  move 10 steps
  Square
  move 10 steps

repeat 9
  set pen color to red
  Pentagon
  move 10 steps
  set pen color to orange
  Triangle
  turn 40 degrees

repeat 10
  Square
  turn 36 degrees
  repeat 3
    Pentagon
    move 10 steps

repeat 4
  Square
  move 60 steps
  repeat 2
    turn 45 degrees
  Square
  turn 45 degrees
  turn 90 degrees
    
```

Repeat 10
 Draw Square
 Turn left 36 degrees
 Repeat 3
 Draw pentagon
 Move 10

Repeat 4
 Repeat 2
 Draw Square
 Move backwards 25
 Turn right 90 degrees

Repeat 4
 Draw Pentagon
 Move 10
 Draw Square
 Move 10

Repeat 4
 Move 60
 Repeat 2
 Turn right 45 degrees
 Draw Square
 Turn left 45 degrees
 Turn Right 90 degrees

Repeat 9
 Change colour to red
 Draw pentagon
 Move 10
 Change colour to orange
 Draw Triangle
 Turn right 40 degrees

Section 9 Procedures with inputs

Name	Class
------	-------

```

define Regular 2D Shape Number of sides Distance of side Angle
pen down
repeat Number of sides
  move Distance of side steps
  turn Angle degrees
pen up
  
```

All the code below uses the procedure above. Draw the shapes produced by the code.

<pre> Regular 2D Shape 3 50 120 </pre> <div style="text-align: center; margin-top: 50px;"> </div>	<pre> Regular 2D Shape 3 50 120 turn 180 degrees Regular 2D Shape 3 50 120 </pre> <div style="text-align: center; margin-top: 50px;"> </div>
<pre> Regular 2D Shape 4 50 90 move 50 steps Regular 2D Shape 5 50 72 </pre> <div style="text-align: center; margin-top: 50px;"> </div>	<pre> repeat 3 Regular 2D Shape 4 50 90 turn 20 degrees </pre> <div style="text-align: center; margin-top: 50px;"> </div> <p style="color: red; text-align: center; margin-top: 20px;">You are looking for similar not exactly the same as pupils haven't got protractors and rulers</p>