

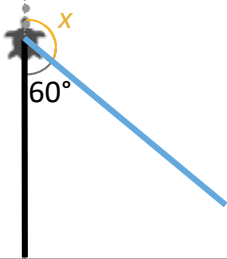
Turtlestitch Maths **Answers**

Finding angles using properties of shapes

Angles at a point on a straight line total 180° .

$$180 - 60 = 120$$

$$x = 120^\circ$$

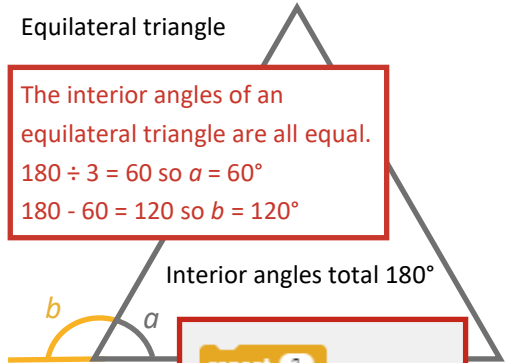


Equilateral triangle

The interior angles of an equilateral triangle are all equal.

$$180 \div 3 = 60 \text{ so } a = 60^\circ$$

$$180 - 60 = 120 \text{ so } b = 120^\circ$$



```
repeat 3
  move 300 steps
  turn 120 degrees
```

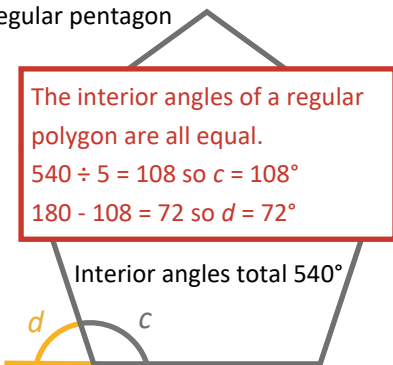
Regular pentagon

The interior angles of a regular polygon are all equal.

$$540 \div 5 = 108 \text{ so } c = 108^\circ$$

$$180 - 108 = 72 \text{ so } d = 72^\circ$$

Interior angles total 540°



```
repeat 5
  move 300 steps
  turn 72 degrees
```

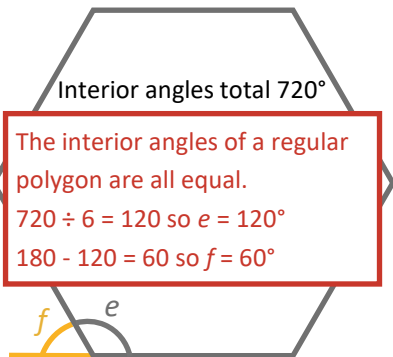
Regular hexagon

Interior angles total 720°

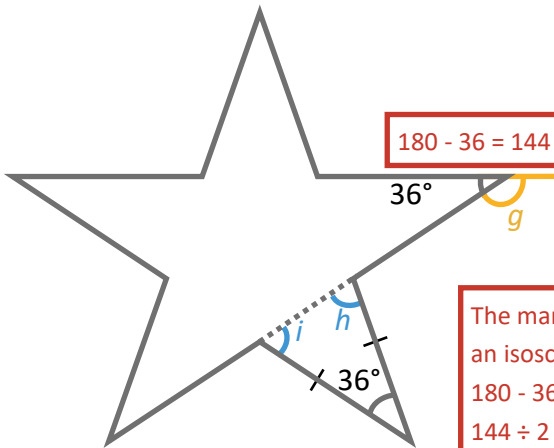
The interior angles of a regular polygon are all equal.

$$720 \div 6 = 120 \text{ so } e = 120^\circ$$

$$180 - 120 = 60 \text{ so } f = 60^\circ$$



```
repeat 6
  move 300 steps
  turn 60 degrees
```

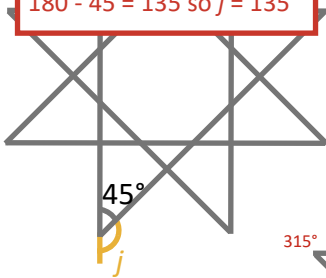


$180 - 36 = 144$ so $g = 144^\circ$

The markings show us that this is an isosceles triangle, so $h = i$.
 $180 - 36 = 144$
 $144 \div 2 = 72$ so $h = 72^\circ$ and $i = 72^\circ$

```
repeat 8
  move 300 steps
  turn 135 degrees
```

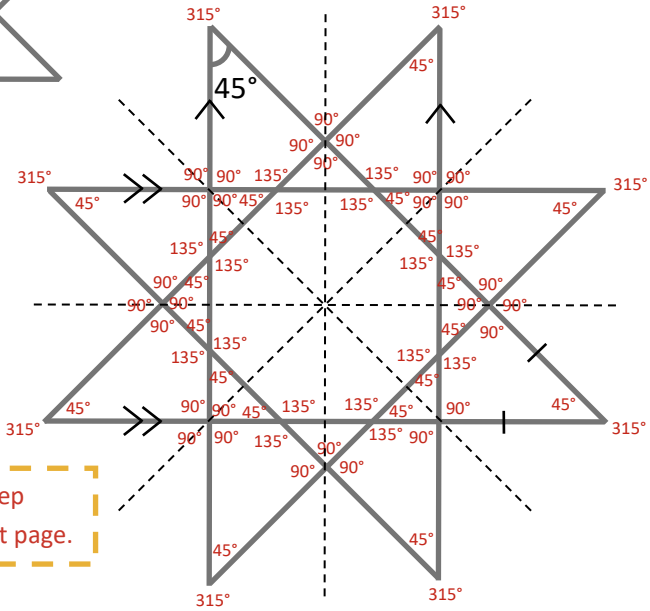
$180 - 45 = 135$ so $j = 135^\circ$



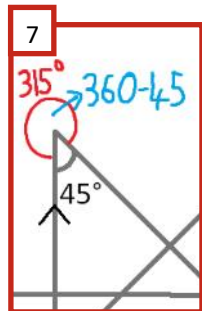
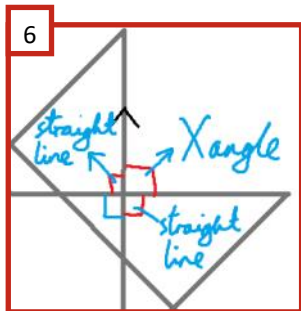
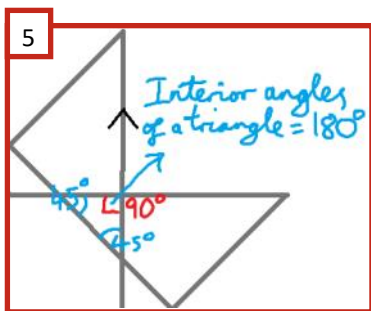
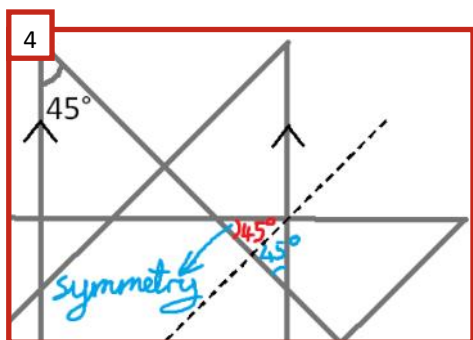
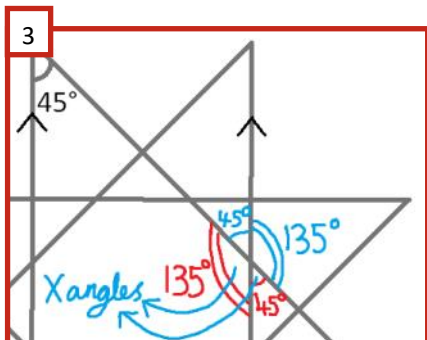
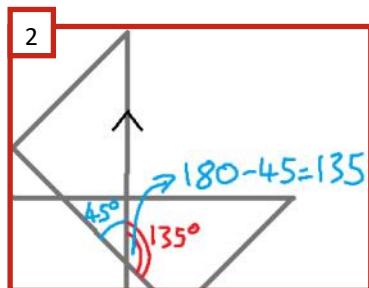
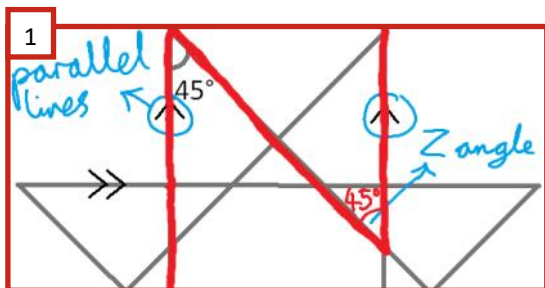
```
repeat 5
  move 300 steps
  turn 144 degrees
```

```
repeat 5
  move 300 steps
  turn 144 degrees
  move 300 steps
  turn 72 degrees
```

Line of symmetry



Find a step-by-step guide on the next page.



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Now use the lines of symmetry to fill in the rest.

