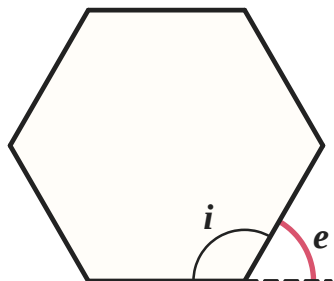


Angles in Regular Polygons

1

A regular hexagon has 6 sides.
Find e and i .

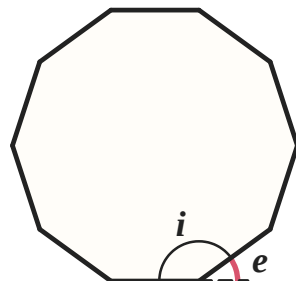


$$e = 360 \div \boxed{} = \boxed{}^\circ$$

$$i = 180 - \boxed{} = \boxed{}^\circ$$

2

A regular decagon has 10 sides.
Find e and i .

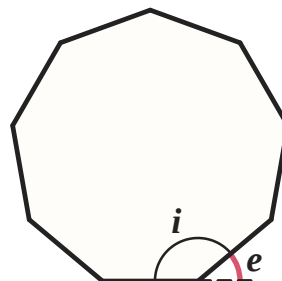


$$e = 360 \div \boxed{} = \boxed{}^\circ$$

$$i = 180 - \boxed{} = \boxed{}^\circ$$

3

A regular nonagon has 9 sides.
Find e and i .

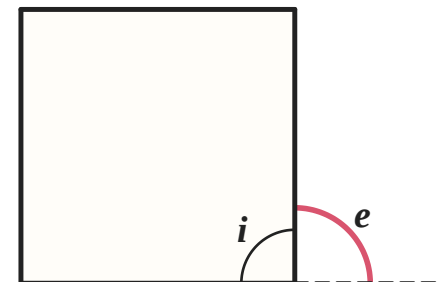


$$e = 360 \div \boxed{} = \boxed{}^\circ$$

$$i = 180 - \boxed{} = \boxed{}^\circ$$

4

A square has 4 sides. Find e and i .

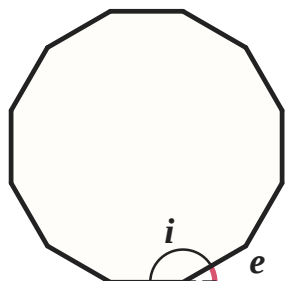


$$e = 360 \div \boxed{} = \boxed{}^\circ$$

$$i = 180 - \boxed{} = \boxed{}^\circ$$

5

A regular polygon has 12 sides.
Find e and i .

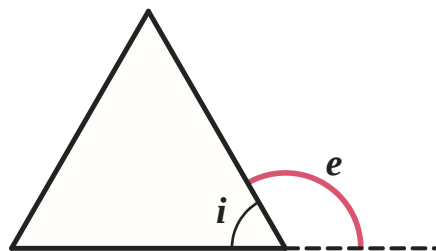


$$e = \boxed{} \div \boxed{} = \boxed{}^\circ$$

$$i = \boxed{} - \boxed{} = \boxed{}^\circ$$

6

An equilateral triangle has 3 sides.
Find e and i .

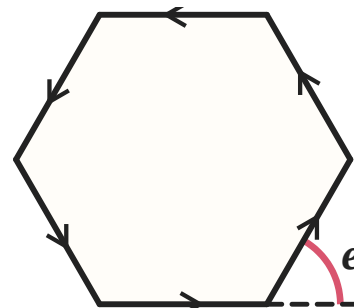


$$e = \boxed{} \div \boxed{} = \boxed{}^\circ$$

$$i = \boxed{} - \boxed{} = \boxed{}^\circ$$

7

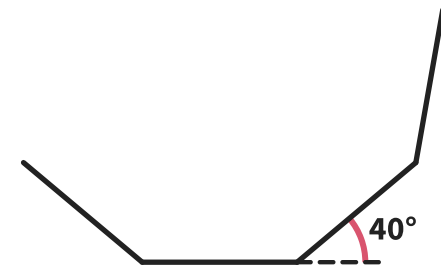
A robot drives round a path.
The path is a regular hexagon.
How many degrees does it turn at each corner?



$$e = \boxed{} \div \boxed{} = \boxed{}^\circ$$

8

Each exterior angle of a regular polygon is 40° . How many sides does it have?



$$e = \boxed{} \div \boxed{} = \boxed{40}^\circ$$

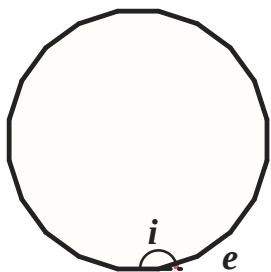
Sides

Angles in Regular Polygons *further practice*

9



A regular polygon has 20 sides.
Find e and i .



$$e = \boxed{} \div \boxed{} = \boxed{}^\circ$$

$$i = \boxed{} - \boxed{} = \boxed{}^\circ$$

10



Each exterior angle of a regular polygon is 45° . Find the interior angle i .

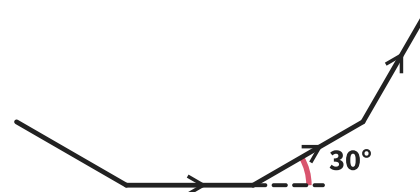


$$i = \boxed{} - \boxed{} = \boxed{}^\circ$$

11



A robot drives round a path shaped like a regular polygon. It turns 30° at each corner. How many corners does the path have?



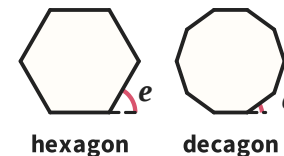
$$e = \boxed{} \div \boxed{} = \boxed{30}^\circ$$

Corners

12



Which has the bigger exterior angle, a regular hexagon or a regular decagon?



$$e = \boxed{} \div \boxed{} = \boxed{}^\circ$$

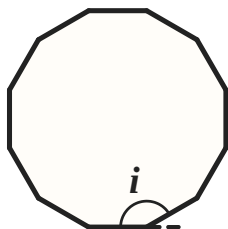
$$e = \boxed{} \div \boxed{} = \boxed{}^\circ$$

Bigger

13



A £1 coin is a regular polygon with 12 sides. Find the size of each interior angle.

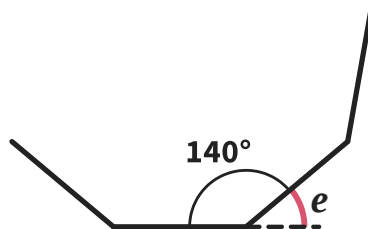


Answer

14



Each interior angle of a regular polygon is 140° . How many sides does it have?

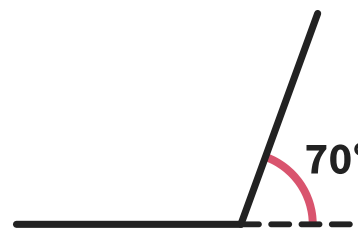


Answer

15



Can a regular polygon have an exterior angle of 70° ?
Show how you know.

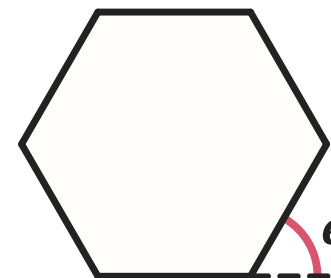


Answer

16



Sam says $e = 180 \div 6 = 30^\circ$.
What has he done wrong?



The exterior angles add up to

So $e =$