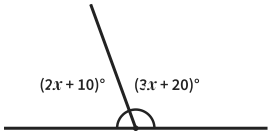


1

Find x .



$$\text{Add } (2x + 10) + (3x + 20) = 180$$

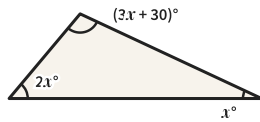
$$\text{Simplify } 5x + 30 = 180$$

$$x = 30$$

Answer $x = 30$

2

Find x .



$$\text{Add } x + 2x + (3x + 30) = 180$$

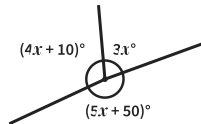
$$\text{Simplify } 6x + 30 = 180$$

$$x = 25$$

Answer $x = 25$

3

Find x .



$$\text{Add } 3x + (4x + 10) + (5x + 50) = 360$$

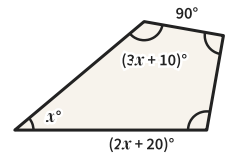
$$\text{Simplify } 12x + 60 = 360$$

$$x = 25$$

Answer $x = 25$

4

Find x .

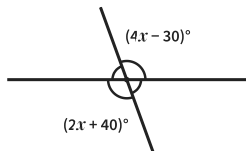


$$x = 40$$

Answer $x = 40$

5

Find x .



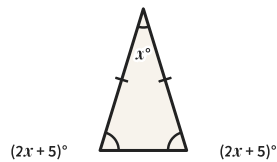
vertically opposite angles are equal:
 $4x - 30 = 2x + 40$

$$x = 35$$

Answer $x = 35$

6

The two sides with a mark are equal.
Find the size of the largest angle.



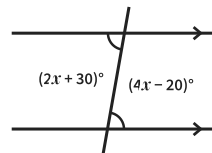
$$5x + 10 = 180, \text{ so } x = 34$$

$$73^\circ$$

Answer 73°

7

Find x , then the size of each marked angle.



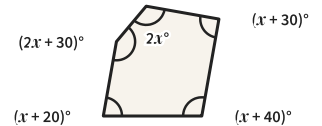
alternate angles are equal

$$x = 25, 80^\circ$$

Answer $x = 25, 80^\circ$

8

The angles in a pentagon add to 540° .
Find x .



$$7x + 120 = 540$$

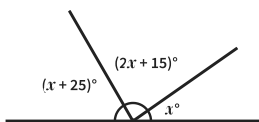
$$x = 60$$

Answer $x = 60$

Angles and algebra further practice

9

Find x .



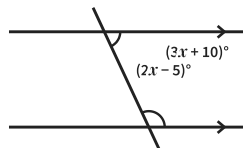
$$4x + 40 = 180$$

$$x = 35$$

Answer $x = 35$

10

Find x .



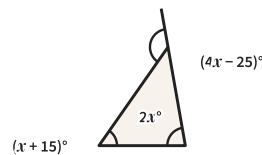
co-interior angles add to 180°

$$x = 35$$

Answer $x = 35$

11

Find x .



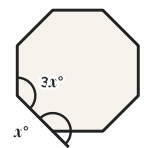
the exterior angle equals the two opposite angles: $4x - 25 = x + 15$

$$x = 40$$

Answer $x = 40$

12

Part of a regular polygon is shown.
How many sides does it have?



$$4x = 180, \text{ so the exterior angle is } 45^\circ$$

$$8 \text{ sides}$$

Answer 8 sides

13

Find the size of the largest angle in this quadrilateral.



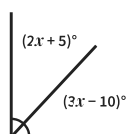
$$10x = 360, \text{ so } x = 36$$

$$144^\circ$$

Answer 144°

14

The two angles make a right angle.
Find x .



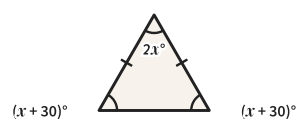
$$5x - 5 = 90$$

$$x = 19$$

Answer $x = 19$

15

Find x . What type of triangle is this?



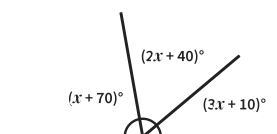
every angle is 60°

$$x = 30, \text{ equilateral}$$

Answer $x = 30, \text{ equilateral}$

16

Kai says $x = 40$. Explain his mistake and find the right value.



Kai used 360° ; angles on a line add to 180°

$$x = 10$$

Answer $x = 10$