

Start Tasks – Answers



1. Angles on a straight line are $(x + 40)^\circ$ and 95° . Find x .



Solution

$$\begin{aligned}(x + 40) + 95 &= 180 \\ x + 135 &= 180 \\ x &= 45\end{aligned}$$

3. Vertically opposite angles are $(2x)^\circ$ and 84° . Find x .



Solution

$$\begin{aligned}\text{Vertically opposite:} \\ 2x &= 84 \\ x &= 42\end{aligned}$$

2. A right angle is split into x° and 32° . Find x .

Solution

$$\begin{aligned}x + 32 &= 90 \\ x &= 58\end{aligned}$$

4. Angles around a point are 150° , 140° , and x° . Find x .



Solution

$$\begin{aligned}150 + 140 + x &= 360 \\ 290 + x &= 360 \\ x &= 70\end{aligned}$$

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5. Co-interior angles are x° and 108° . Find x .

Solution

Co-interior sum to 180:

$$x + 108 = 180$$

$$x = 72$$

6. Corresponding angles are $(x + 10)^\circ$ and 73° . Find x .



Solution

Corresponding equal:

$$x + 10 = 73$$

$$x = 63$$

7. Alternate angles are $(3x)^\circ$ and 66° . Find x .



Solution

Alternate equal:

$$3x = 66$$

$$x = 22$$

8. A triangle has angles 55° , 65° , and x° . Find x .



Solution

$$55 + 65 + x = 180$$

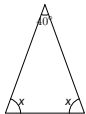
$$120 + x = 180$$

$$x = 60$$

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9. An isosceles triangle has base angles x° and apex 40° . Find x .



Solution

$$2x + 40 = 180$$

$$2x = 140$$

$$x = 70$$

10. An equilateral triangle has each angle $(4x - 8)^\circ$. Find x .



Solution

Each angle = 60° :

$$4x - 8 = 60$$

$$x = 17$$

11. The trapezium has area 28 cm^2 . Find x .



Solution

$$\frac{(x + 2) + 10}{2} \times 4 = 28$$

$$2(x + 12) = 28$$

$$x = 2$$

12. A square has side $x \text{ cm}$ and perimeter 48 cm . Find x .



Solution

$$4x = 48$$

$$x = 12$$

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13. A rectangle has length 11 cm and width x cm. Its perimeter is 30 cm. Find x .



Solution

$$2(11 + x) = 30$$

$$11 + x = 15$$

$$x = 4$$

15. A rectangle has width 6 cm and length x cm. Its area is 54 cm^2 . Find x .



Solution

$$6x = 54$$

$$x = 9$$

14. A triangle has base 8 cm and height x cm. Its area is 32 cm^2 . Find x .



Solution

$$\frac{1}{2}(8)(x) = 32$$

$$4x = 32$$

$$x = 8$$

16. A supplementary angle pair is x° and 112° . Find x .

Solution

$$x + 112 = 180$$

$$x = 68$$