

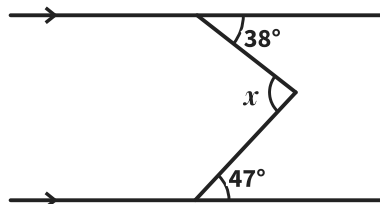
Angles on Parallel Lines

ANSWERS

1



Work out the size of angle x .



Not drawn accurately

a third parallel through the bend

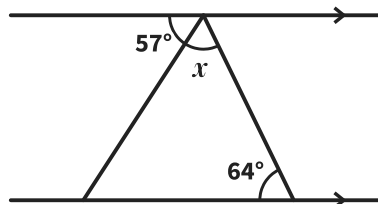
$$x = 38 + 47 \text{ (alternate angles)}$$

Answer $x = 85^\circ$

2



Work out the size of angle x .



Not drawn accurately

bottom left angle = 57° (alternate angles)

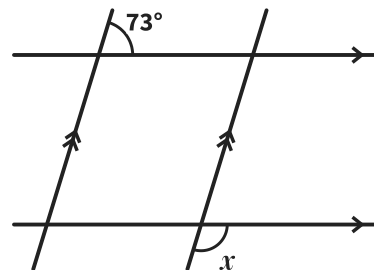
$$x = 180 - 57 - 64 \text{ (angles in a triangle)}$$

Answer $x = 59^\circ$

3



Work out the size of angle x .



Not drawn accurately

73° at the other top crossing

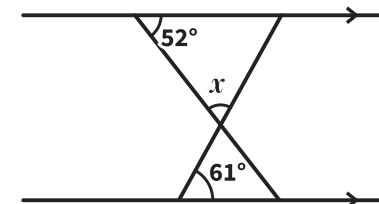
$$x = 180 - 73 \text{ (angles on a line)}$$

Answer $x = 107^\circ$

4



Work out the size of angle x .



Not drawn accurately

top right angle = 61° (alternate angles)

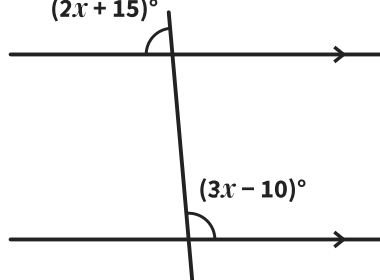
$$x = 180 - 52 - 61 \text{ (angles in a triangle)}$$

Answer $x = 67^\circ$

5



Work out the value of x .
 $(2x + 15)^\circ$



Not drawn accurately

$$2x + 15 + 3x - 10 = 180$$

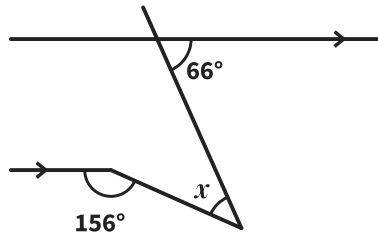
$$5x + 5 = 180, \text{ so } x = 35$$

Answer $x = 35$

6



Work out the size of angle x .



Not drawn accurately

extend the bottom line: 66° (corresponding)

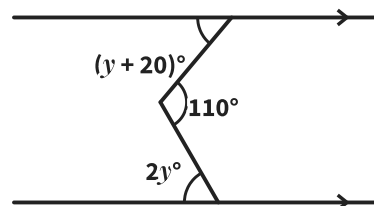
$$x = 66 - 24 \text{ (exterior angle of the triangle)}$$

Answer $x = 42^\circ$

7



Work out the value of y .



Not drawn accurately

$$y + 20 + 2y = 110 \text{ (alternate angles)}$$

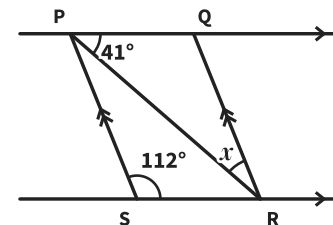
$$3y + 20 = 110, \text{ so } y = 30$$

Answer $y = 30$

8



PQRS is a parallelogram. Work out the size of angle x .



Not drawn accurately

$$\text{angle } SPR = 180 - 112 - 41 = 27^\circ$$

$$x = \text{angle } SPR \text{ (alternate angles)}$$

Answer $x = 27^\circ$