

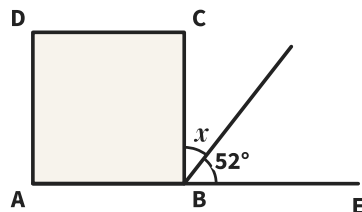
Angle Facts

ANSWERS

1



ABCD is a square. ABE is a straight line.
Work out the size of angle x .



Not drawn accurately

$$\text{angle } ABC = 90^\circ (\text{square})$$

$$x = 180 - 90 - 52 (\text{angles on a line})$$

$$x = 38^\circ$$

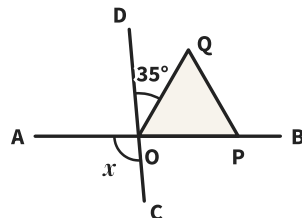
Answer

2



AB and CD are straight lines. OPQ is an equilateral triangle.

Work out the size of angle x .



Not drawn accurately

$$POQ = 60^\circ, \text{ so } BOD = 60 + 35 = 95^\circ$$

$$x = BOD (\text{vertically opposite})$$

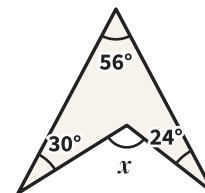
$$x = 95^\circ$$

Answer

3



Work out the size of angle x .



Not drawn accurately

$$\text{reflex angle} = 360 - 56 - 30 - 24 = 250^\circ$$

$$x = 360 - 250 (\text{round a point})$$

$$x = 110^\circ$$

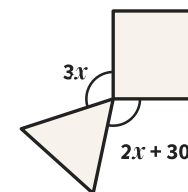
Answer

4



A square and an equilateral triangle meet at a point.

Work out the value of x .



Not drawn accurately

$$90 + 60 + 3x + 2x + 30 = 360$$

$$5x = 180$$

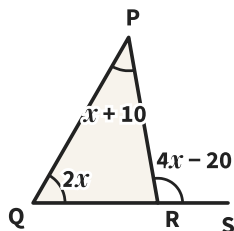
$$x = 36$$

Answer

5



QRS is a straight line.
Work out the value of x .



Not drawn accurately

$$x + 10 + 2x = 4x - 20 (\text{exterior angle})$$

$$3x + 10 = 4x - 20$$

$$x = 30$$

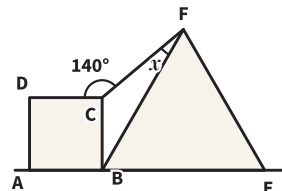
Answer

6



ABCD is a square. BEF is an equilateral triangle. ABE is a straight line.

Work out the size of angle x .



Not drawn accurately

$$BCF = 360 - 90 - 140 = 130^\circ$$

$$CBF = 30^\circ, x = 180 - 130 - 30$$

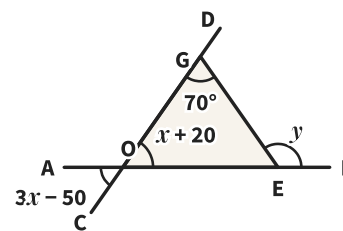
$$x = 20^\circ$$

Answer

7



AB and CD are straight lines.
Work out the size of angle y .



Not drawn accurately

$$3x - 50 = x + 20, \text{ so } x = 35$$

$$EOG = 55^\circ, y = 55 + 70 (\text{exterior angle})$$

$$y = 125^\circ$$

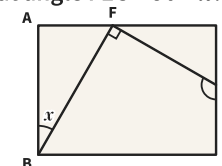
Answer

8



ABCD is a rectangle. Angle ABF = x and angle BFE = 90° .

Show that angle FEC = $90 + x$.



Not drawn accurately

$$AFB = 90 - x (\text{triangle } ABF, A = 90^\circ)$$

$$DFE = 180 - 90 - (90 - x) = x$$

$$DEF = 90 - x, FEC = 180 - (90 - x)$$

$$\text{angle } FEC = 90 + x$$

Proof