Exercise 17C

Q12

Answer :

$$x + y = 180 \text{ (linear pair)}$$

$$\Rightarrow x + \frac{4}{5}x = 180^\circ$$

$$\Rightarrow 9x = 5 \times 180$$

$$\Rightarrow x = 100$$

Q13

Answer :

(b) 50°

Here, $\angle AOC$ and $\angle BOD$ are vertically opposite angles.

$\therefore \angle AOC = \angle BOD$

Given, $\angle AOC = 50^0$

$\therefore \angle BOD = 50^0$

Q14

Answer :

(a) 32

$(3x-8)^\circ + (x+10)^\circ + 50^\circ = 180^\circ$ (linear pair)

$\Rightarrow 4x^\circ + 52^\circ = 180^\circ$

$\Rightarrow 4x^\circ = 128^\circ$

$\Rightarrow x^\circ = 32^\circ$

$\therefore x = 32$

Q15

Answer :

$\left(a\right)$ 32

$$(3x-8)^{\circ}+(x+10)^{\circ}+50^{\circ}=180^{\circ}\ \text{(linear pair)}$$
$$\Rightarrow 4x^{\circ}+52^{\circ}=180^{\circ}$$
$$\Rightarrow 4x^{\circ}=128^{\circ}$$
$$\Rightarrow x^{\circ}=32^{\circ}$$

$\therefore\ x=32$

Q16

Answer :

$\left(c\right)$ 100°

$$\angle ACB=\angle ABC+\angle BAC\ \text{(exterior angle property)}$$
$$=(45^{\circ}+55^{\circ})$$
$$=100^{\circ}$$

Q17

Answer :

$\left(b\right)$ 50°

$$\angle BCA=180^{0}-120^{0}\ \left(\text{linear pair}\right)$$
$$=60^{0}$$
$$\angle BAC=180^{0}-\left(60^{0}+70^{0}\right)\ \left(\text{angle sum property of triangles}\right)$$
$$=50^{0}$$

Q18

Answer :

$\left(c\right)$ 150°

$$x^{0}+70^{0}+50^{0}+90^{0}=360^{0}\ \left(\text{complete angle}\right)$$
$$\Rightarrow x^{0}=360^{0}-210^{0}$$
$$=150^{0}$$

********** END **********