Lines and angles Ex 14.1 Q27

Answer :

$$\angle AOB + \angle BOC = 180^\circ \qquad \text{(Linear pair)}$$
$$\Rightarrow 3x + 3x = 180^\circ$$
$$\Rightarrow 6x = 180^\circ$$
$$\Rightarrow x = \frac{180^\circ}{6} = 30^\circ$$

Lines and angles Ex 14.1 Q28

Answer :

$$\angle AOB + \angle BOC = 180^\circ \qquad \text{(Linear pair)}$$
$$\Rightarrow 70^\circ + 2x = 180^\circ$$
$$\Rightarrow 2x = 180^\circ - 70^\circ = 110^\circ$$
$$\Rightarrow x = \frac{110^\circ}{2} = 55^\circ$$

Lines and angles Ex 14.1 Q29

Answer :

$$\angle QOP + \angle QOR + \angle ROS = 180^\circ \qquad \text{(Angles on a straight line)}$$

$$\Rightarrow 60^\circ + 4x + 40^\circ = 180^\circ$$
$$\Rightarrow 100^\circ + 4x = 180^\circ$$
$$\Rightarrow 4x = 180^\circ - 100^\circ = 80^\circ$$
$$\Rightarrow x = \frac{80^\circ}{4} = 20^\circ$$

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