Lines and angles Ex 14.2 Q12

Answer :

In the given figure, $l \parallel m \parallel n$ and p is a transversal line.

Thus, we have:

$$\angle 4 + 60^\circ = 180^\circ \quad \text{(Linear pair)}$$

$$\Rightarrow \angle 4 = 180^\circ - 60^\circ = 120^\circ$$

$$\angle 4 = \angle 1 = 120^\circ \quad \text{(Corresponding angles)}$$

$$\angle 1 = \angle 2 = 120^\circ \quad \text{(Corresponding angles)}$$

$$\angle 3 = \angle 2 = 120^\circ \quad \text{(Vertically opposite angles)}$$

Thus,

$$\angle 1 = \angle 2 = \angle 3 = 120^\circ$$

Lines and angles Ex 14.2 Q13

Answer :

In the given figure, $l \parallel m \parallel n$ and $\angle 1 = 60^\circ$.

Thus, we have:

$$\angle 3 = \angle 1 = 60^\circ \quad \text{(Corresponding angle)}$$

Now,

$$\angle 3 + \angle 4 = 180^\circ \quad \text{(Linear pair)}$$

$$\angle 4 = 180^\circ - \angle 3 = 180^\circ - 60^\circ = 120^\circ$$

$$\angle 2 = \angle 4 = 120^\circ \quad \text{(Alternate interior angles)}$$

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