Lines and angles Ex 14.2 Q10

**Answer :**

In the given figure, line $l \parallel m$.

Thus, we have:

$\angle a = 110^\circ$ (Vertically opposite angles)

$\angle b = \angle a = 110^\circ$ (Corresponding angles)

$\angle d = 85^\circ$ (Vertically opposite angles)

$\angle c = \angle d = 85^\circ$ (Corresponding angles)

Lines and angles Ex 14.2 Q11

**Answer :**

In the given figure, $AB \parallel CD$ and $t$ is a transversal line.

Now, let:

$\angle 1 = 3x$

$\angle 2 = 2x$

Thus, we have:

$\angle 1 + \angle 2 = 180^\circ$ (Linear pair)

$\therefore\ 3x + 2x = 180^\circ$

$\Rightarrow 5x = 180^\circ$

$\Rightarrow x = \frac{180^\circ}{5} = 36^\circ$

Thus,

$\angle 1 = 3 \times 36^\circ = 108^\circ$

$\angle 2 = 2 \times 36^\circ = 72^\circ$

Now,

$\angle 1 = \angle 5 = 108^\circ$ (Corresponding angles)

$\angle 1 = \angle 3 = 108^\circ$ (Vertically opposite angles)

$\angle 5 = \angle 7 = 108^\circ$ (Vertically opposite angles)

$\angle 2 = \angle 6 = 72^\circ$ (Corresponding angles)

$\angle 4 = \angle 2 = 72^\circ$ (Vertically opposite angles)

$\angle 8 = \angle 6 = 72^\circ$ (Vertically opposite angles)

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