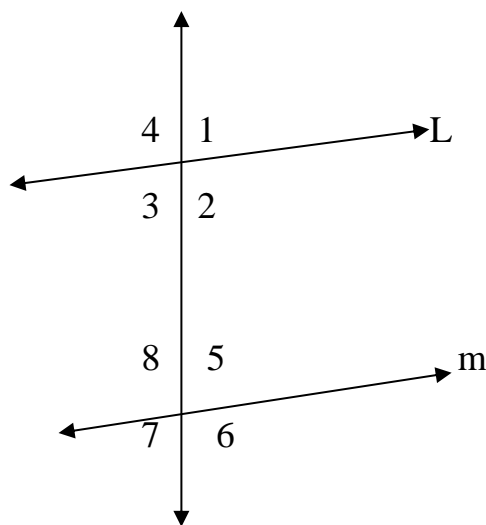


ANSWER KEY (EXERCISE – 10B)

Q-4. Given $L \parallel m$ and $\angle 1 = 71^\circ$. Find the measures of all the angles in the figure shown.

Sol :



$$\begin{aligned} \angle 1 + \angle 4 &= 180^\circ \text{ (linear pair)} \\ 71^\circ + \angle 4 &= 180^\circ \\ \angle 4 &= 180^\circ - 71^\circ = 109^\circ \end{aligned}$$

So, $\angle 1 = \angle 3 = 71^\circ$ (vertically opposite angles)

$\angle 4 = \angle 2 = 109^\circ$ (vertically opposite angles)

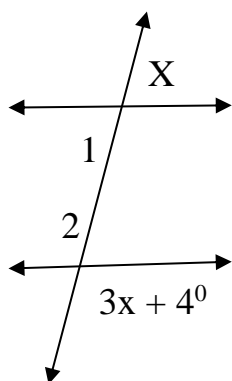
$\angle 1 = \angle 5 = 71^\circ$ (corresponding angles)

$\angle 2 = \angle 6 = 109^\circ$ (corresponding angles)

$\angle 5 = \angle 7 = 71^\circ$ (vertically opposite angles)

$\angle 6 = \angle 8 = 109^\circ$ (vertically opposite angles)

Q-5. Given $L \parallel m$, find the measure of angle 1 and angle 2 in the given figure



$$\angle 1 = x$$

$$\angle 2 = 3x + 4^\circ$$

$$\angle 1 + \angle 2 = 180^\circ \text{ (sum of internal angles)}$$

$$x + 3x + 4^\circ = 180^\circ$$

$$4x + 4^0 = 180^0$$

$$4x = 180^0 - 4^0$$

$$4x = 176^0$$

$$x = 176^0 / 4$$

$$= 44^0$$

Hence, $\angle 1 = x = 44^0$

$$\angle 2 = 3x + 4^0 = 3 \times 44^0 + 4^0 = 132^0 + 4^0 = 136^0$$