Lines and angles Ex 14.2 Q4

Answer :

In this given Fig., line $l \parallel m$.

Here,

Alternate angle to $\angle 13$ is $\angle 7$.

Corresponding angle to $\angle 15$ is $\angle 7$.

Alternate angle to $\angle 15$ is $\angle 5$.

Lines and angles Ex 14.2 Q5

Answer :

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

Here,

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

$\therefore \angle 2 = 180° - \angle 1 = 180° - 40° = 140°$

$\angle 5 = \angle 1 = 40°$ (Corresponding angles)

$\angle 3 = \angle 1 = 40°$ (Vertically opposite angles)

$\angle 7 = \angle 3 = 40°$ (Corresponding angles)

$\angle 7 = \angle 5 = 40°$ (Vertically opposite angles)

Also,

$\angle 2 = \angle 6 = 140°$ (Corresponding angles)

$\angle 2 = \angle 4 = 140°$ (Vertically opposite angles)

$\angle 4 = \angle 8 = 140°$ (Corresponding angles)

$\angle 8 = \angle 6 = 40°$ (Vertically opposite angles)

Thus,

$\angle 2 = \angle 8, \angle 3 = \angle 5, \angle 6 = \angle 4, \angle 1 = \angle 7$

Hence, alternate angles are equal.

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