

Mathematics

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(Chapter – 6) (Lines and Angles)(Exemplar Problems)

(Class – IX)

Exercise 6.2

Question 10:

Two lines l and m are perpendicular to the same line n . Are l and m perpendicular to each other? Give reason for your answer.

Answer 10:

No

Let line l and m are two lines perpendicular to the line n .

$$\therefore \angle 1 + \angle 2 = 90^\circ + 90^\circ = 180^\circ$$

[$\because l \perp n$ and $m \perp n$]

It implies that the sum of interior angles on the same side of transversal is 180° .

Hence, $l \parallel m$.

