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.

$\therefore \quad \angle 1 + \angle 2 = 90° + 90° = 180°$

$[\because l \perp n \text{ and } m \perp n]$

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

Hence, $l \parallel m$.