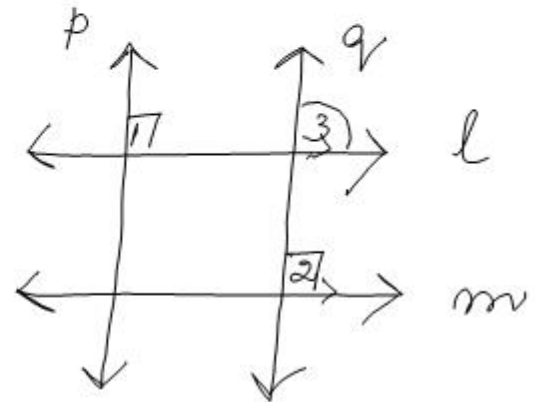


NCERT Exempar Solutions by Dev Anoop (Bathinda)

(10) given - In fig $l \parallel m$,
 $p \perp l$, $q \perp m$



to prove $p \parallel q$

proof $p \perp l$

$$\therefore \angle 1 = 90^\circ \dots \textcircled{i}$$

$$q \perp m$$

$$\therefore \angle 2 = 90^\circ \dots \textcircled{ii}$$

$$l \parallel m$$

$$\therefore \angle 3 = \angle 2 = 90^\circ \dots \textcircled{iii} \text{ (corresponding angles)}$$

From \textcircled{i} , \textcircled{ii}

$$\angle 1 = \angle 3$$

but these are alternate interior angles

$$\therefore p \parallel q$$