

Home Work

Lines and Angles, ch-14

Exercise 14 (A) Q. 4, 5, 6

Q-48 \therefore AOC is a straight angle line.

$$\therefore \angle AOC + \angle BOD + \angle DOC = 180^\circ$$

$$\Rightarrow y + 150^\circ - x + x = 180^\circ$$

$$\Rightarrow y + 150^\circ = 180^\circ$$

$$\Rightarrow y = 180^\circ - 150^\circ = 30^\circ$$

$$\text{So, } y = 30^\circ$$

Q-5) $\angle QPR$ is a straight angle,

$$\therefore \angle SQT + \angle TQP + \angle PQR = 180^\circ$$

$$\Rightarrow x + 70^\circ + 20^\circ - x + \angle PQR = 180^\circ$$

$$\Rightarrow 90^\circ + \angle PQR = 180^\circ$$

$$\Rightarrow \angle PQR = 180^\circ - 90^\circ = 90^\circ$$

Hence $\angle PQR = 90^\circ$

Q-6) $p^\circ + q^\circ + r^\circ = 180^\circ$

But $p^\circ = q^\circ = r^\circ$

$$\therefore p^\circ + p^\circ + p^\circ = 180^\circ$$

$$\Rightarrow 3p^\circ = 180^\circ$$

$$\Rightarrow p = \frac{180^\circ}{3} = 60^\circ$$

$$\text{So } p^\circ = q^\circ = r^\circ = 60^\circ$$