STRAIGHT LINES

SLOPE OF A LINE

EXERICSE

Q.1 The slope of a straight line passing through (1,5) and (–2,–4) is ____.

Q.2 A straight line that passes through the points (x, –9), (2,5)and (5,y) has a slope of 2. Find x and y.

Q.3 Three points P (h, k); Q(x_1, y_1) and R (x_2, y_2) lie on a line. Show that :

$$(h-x_1)\,(y_2-y_1) = (k-y_1)\,(x_2-x_1).$$

Q.4 Find the slope of the line through the point

(i) (1,2);(4, 2) (ii) (4,–6); (–2,–5)

Q.5 What is the value of y so that the line through (3,y) and (2,7) is parallel to the line through (–1,4) and (0,6)?

Q.6 If two straight lines are perpendicular where the sum of their two slopes is $\frac{3}{2}$ find their slopes.

Q.7 The measure of the acute angle between the straight line r = (3,3)+k(2,2) and the straight line x=0 is ____.

ANSWER KEY

1. 3

2. x= –5, y =11

4. (i) 0 (ii) $-\frac{1}{6}$

5. 9

6. 2 and $-\frac{1}{2}$

7. 90°