

CHAPTER 10 – STRAIGHT LINES

Focus Area Based questions

- The slope of the line through the Points (2,5) and (-3,6) is
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- Consider the straight line $3x - 4y - 16 = 0$.
 - Find the slope of the line.
 - Slope of a line which is perpendicular to the above line is
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- Find the x and y intercepts of the line $3x - 4y + 10 = 0$.
- Which is the slope of the line perpendicular to the line with slope $-\frac{3}{2}$?
 - $-\frac{3}{2}$
 - $-\frac{2}{3}$
 - $\frac{3}{2}$
 - $\frac{2}{3}$
- Slope of a line ' L_1 ' making an angle 135° with the positive direction of the x- axis is
- Find the distance of the point (3,-5) from the line $3x - 4y - 26 = 0$.
- Consider the line joining the points P(-4 , 1) and Q(0 , 5) .
 - Write the coordinates of the midpoint of PQ.
 - Find the equation of the line passing through the midpoint of PQ and parallel to the line $3x - 4y + 2 = 0$.
- Find the slope of the line $\frac{x}{a} + \frac{y}{b} = 1$.
 - If the lines joining the points (0,0) , (1,1) and (2,2) , (4,y) are perpendicular. Find y.
- Write the equation of y – axis.

b) Find the distance between the lines $8x + 15y - 5 = 0$ and $8x + 15y + 12 = 0$.

10. a) Reduce the equation $3x + 4y - 12 = 0$ into intercept form.

b) Find the distance of the above line from its origin.

11. Consider the straight line passing through A(-2,6) and B(4,8).

a) Find the slope of the straight line passing through A and B.

b) Prove that the straight line AB is perpendicular to $y + 3x = 2$.

STRAIGHT LINES FOCUS AREA VIDEO LINK:

<https://youtu.be/yB1TctjmQ1g>