FPC-10

5.4 - *Parallel and Perpendicular Lines*

1.

Line 1   Line 2
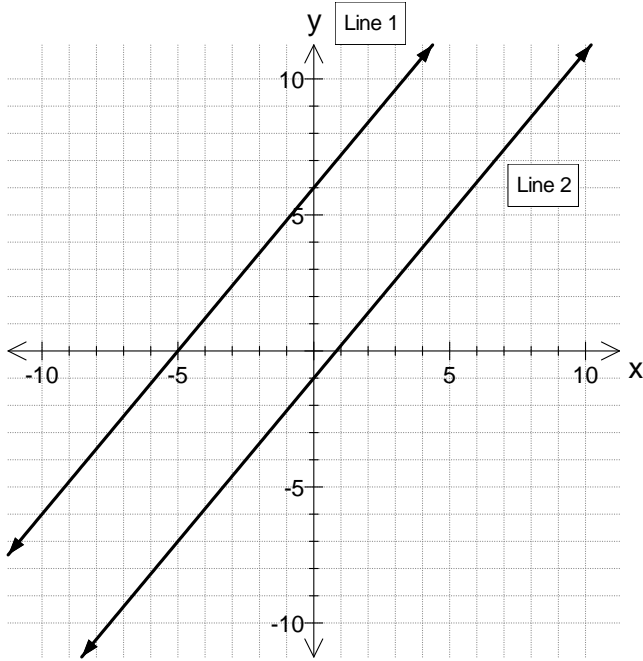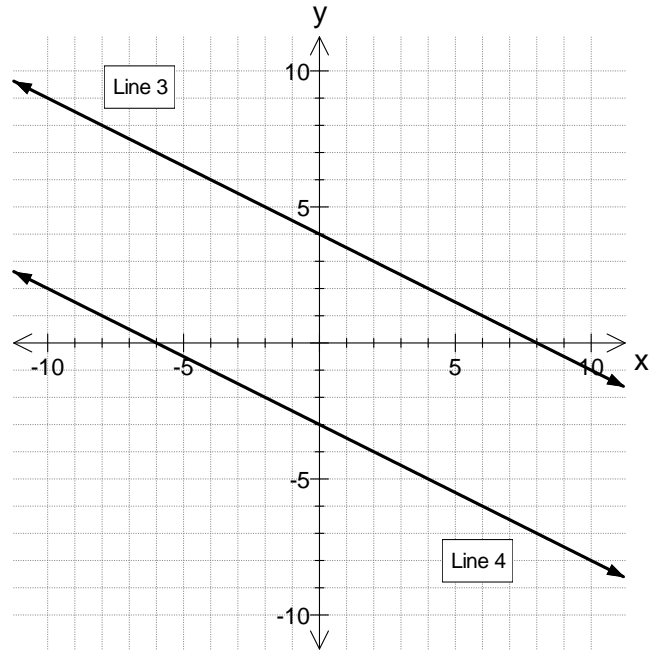
Slope L₁ =   **Slope L₂ =**   **Slope L₃ =**   **Slope L₄ =**

Conclusion: If *line₁* is **PARALLEL** to *line₂* then _____

2.
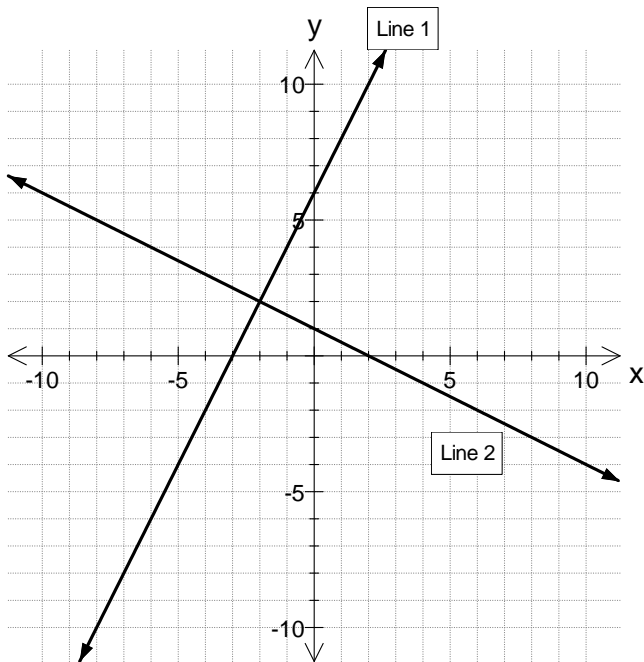
Slope L₁ =   **Slope L₂ =**   **Slope L₃ =**   **Slope L₄ =**
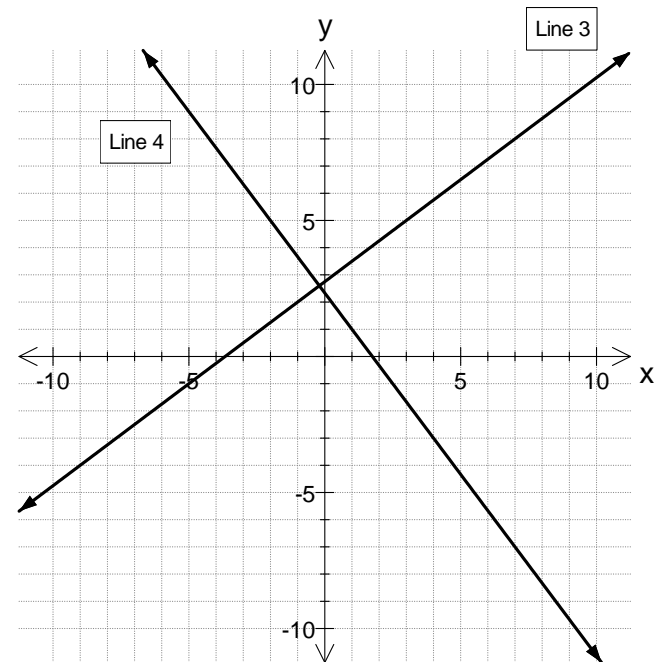
Conclusion: If *line₁* is **PERPENDICULAR** to *line₂* then _____

OR   _____

Examples

1. Complete the following table.

Slope of line 1	Slope of line parallel to line 1	Slope of line perpendicular to line 1
$\dfrac{1}{2}$		
$-\dfrac{3}{4}$		
5		
0.5		
-1.6		

Remember!!

To find the equation of a line, you need:

Slope
+
y-intercept <u>or</u> a point
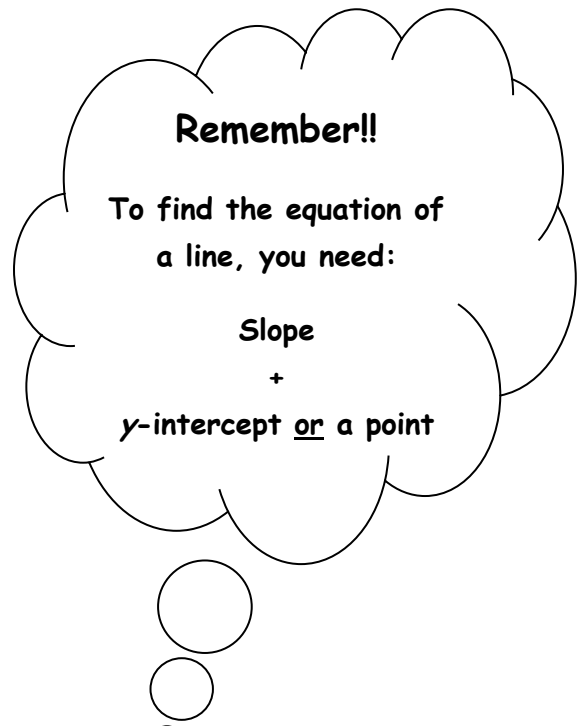
2. Find the equation of a line parallel to $y = \dfrac{2}{3}x - 3$ and passing through the point $(2,\ 3)$.

3. Two perpendicular lines intersect on the *y*-axis. The equation of one of the lines is $y = 2x + 4$. Find the equation of the second line.