

Math:

$$\begin{matrix} x_1 & y_1 & x_2 & y_2 & m \\ (x, 4) & & (-2, 6) & & m = \frac{4}{5} \end{matrix}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$x = ?$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{4}{5} = \frac{6 - 4}{-2 - x}$$

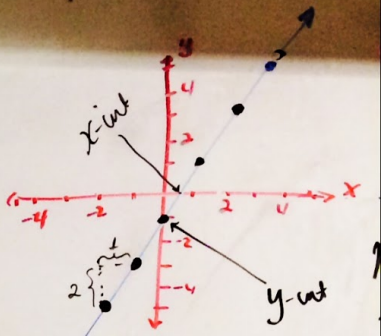
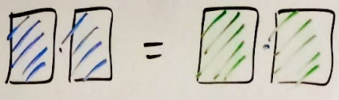
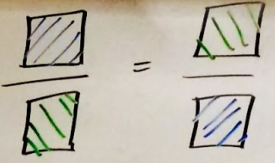
$$\frac{4}{5} = \frac{2}{-2 - x}$$

$$4(-2 - x) = 5(2)$$

$$-8 - 4x = 10$$

$$-4x = 18$$

$$x = -4\frac{1}{2}$$



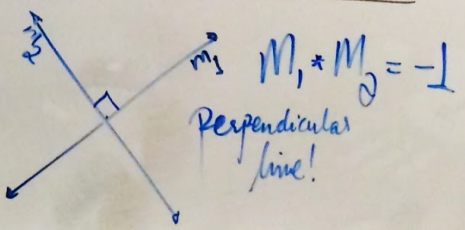
Slope-int: $y = mx + b$

Standard: $Ax + By = C$

Point-slope: $y - y_1 = m(x - x_1)$

x	y
-2	-5
-1	-3
0	-1
1	1
2	3
3	5

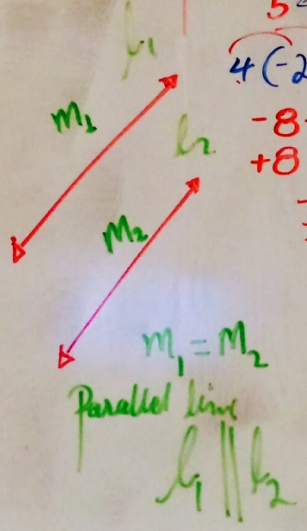
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Three forms of linear Equations (lines)

Parallel & Perpendicular lines

1. Write the formula
2. Label your points
3. Substitute
4. Cross multiply
5. Simplify.



$$3x - 2$$

$$-3x$$