$y=4x-9$

$y=4x-6$

$\frac{4}{1}$ $-\frac{1}{4}$

Which lines are

parallel?

perpendicular?

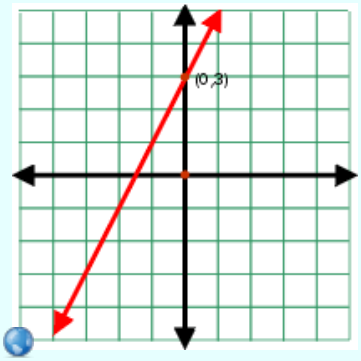
$y=-\frac{1}{4}x-6$

$y=6x-6$

$y=\frac{1}{4}x-6$

3.

$$y = mx + b$$



The equation is said to be in

Slope-Intercept Form

- m = Slope
- b = y-intercept

Find the Slope and Y-intercept

1) $y = 5x + 10$

$m = 5$ $\frac{5 \text{ up}}{1 \text{ over}}$

y-axis $\Rightarrow b = 10$

2) State the perpendicular slope of the equation

$$\frac{2y}{2} = \frac{6x}{2} + \frac{8}{2}$$

$y = 3x + 4$

$m = 3/1$

$b = 4$

$-\frac{1}{3}$

3) State the parallel slope of the equation

$$y - 3 = \frac{1}{2}x + 7$$

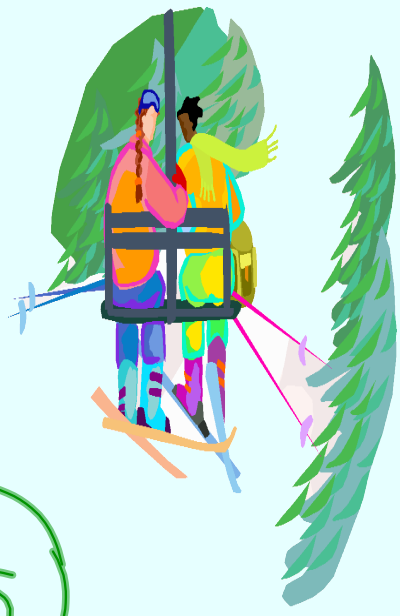
+3

$$y = \frac{1}{2}x + 10$$

$m = \frac{1}{2}$ up over

$b = 10$

$\frac{1}{2}$



4) State the perpendicular slope of the equation

$$2(y - 4) = 4x - 8$$

$2y - 8 = 4x - 8 + 8$

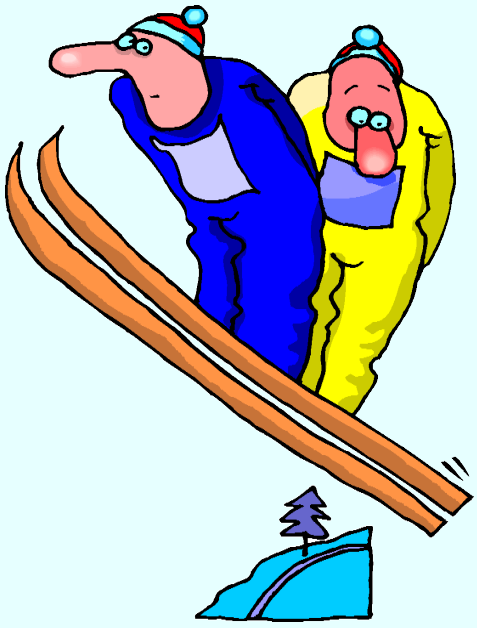
$\frac{2y}{2} = \frac{4x}{2}$

$y = 2x + 0$

$m = 2$

$b = 0$

$-\frac{1}{2}$



5) State the perpendicular slope of the equation

$$3 - 8x = 3y - 6$$

$3y - 6 = 3 - 8x + 6$

$\frac{3y}{3} = \frac{-8x}{3} + \frac{9}{3}$

$y = -\frac{8}{3}x + 3$

$m = -8/3$

$b = 3$

$-8/3$

6) State the parallel slope of the equation

$$\frac{3}{4}y = 3x - 6$$

$\frac{3}{3}y = \frac{12x}{3} - \frac{24}{3}$

$y = 4x - 8$

$m = 4/1$

$b = -8$

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