

## Graphing Standard and Slope Intercept Form Equations

**Objective:** Graph the equation of a line in both standard and slope-intercept form.

Change the equation into slope-intercept form, or find the x and y-intercepts, then graph.

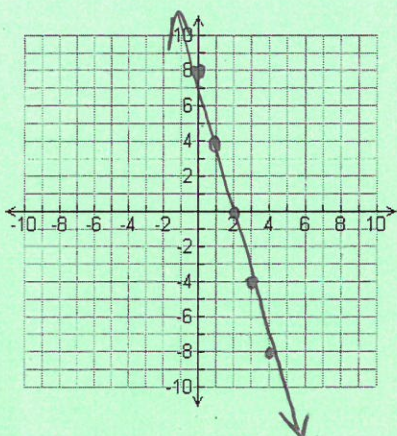
**X-intercept** – Where the graph crosses the x-axis ( $y = 0$ )

**Y-intercept** – Where the graph crosses the y-axis ( $x = 0$ )

1a.  $4x + y = 8$

$-4x \quad -4x$

$y = -4x + 8$



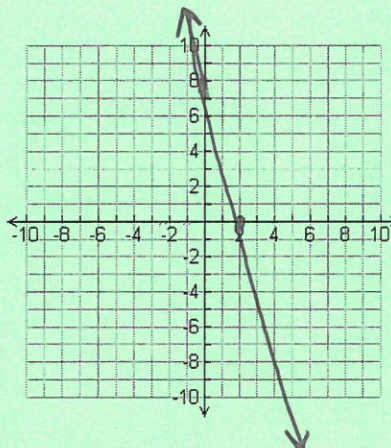
1b.  $4x + y = 8$

X-intercept ( $y = 0$ )  $4x + 0 = 8$

$x = 2$

Y-intercept ( $x = 0$ )  $4(0) + y = 8$

$y = 8$

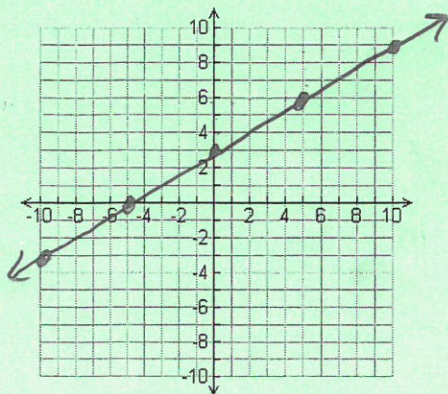


2a.  $-3x + 5y = 15$

$+3x \quad +3x$

$5y = 15 + 3x$

$y = 3 + \frac{3}{5}x$



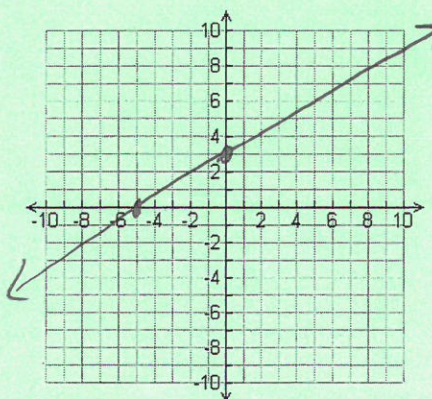
2b.  $-3x + 5y = 15$

X-int ( $y=0$ )  $-3x = 15$

$x = -5$

Y-int ( $x=0$ )  $5y = 15$

$y = 3$

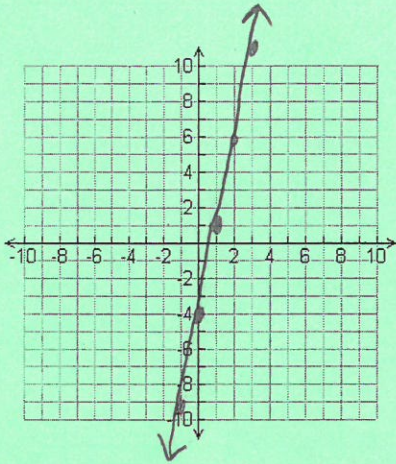


3.  $5x - y = 4$

$y = 5x - 4$

$m = 5$

$b = -4$



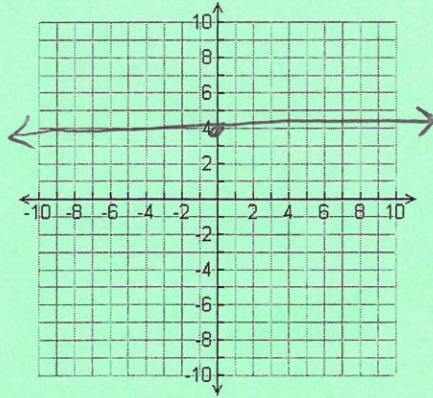
4.  $7y = 28$

$\frac{7y}{7} = \frac{28}{7}$

$y = 4$

$m = 0$

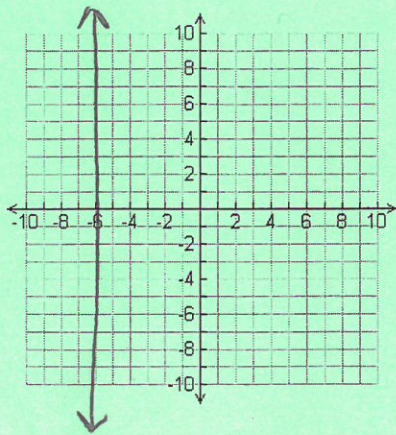
$b = 4$



5.  $x = -6$

vertical line

$m = \emptyset$



6.  $9x - 6y = 54$

x-int ( $y=0$ )

$9x = 54$        $x = 6$

y-int ( $x=0$ )

$-6y = 54$        $y = -9$

