

Name: SOLUTIONS

Section: _____

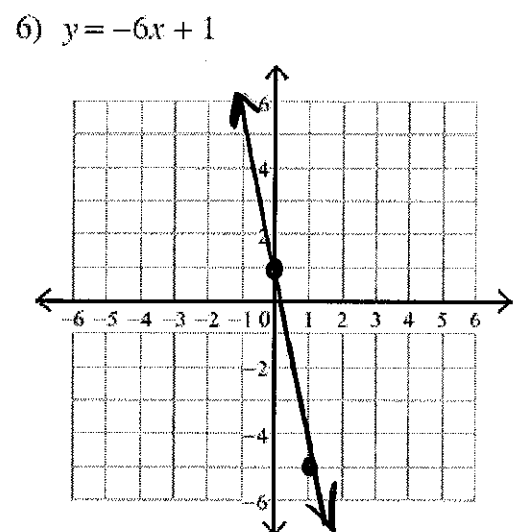
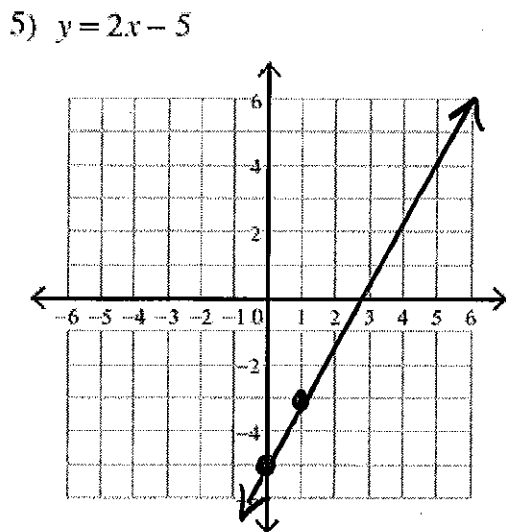
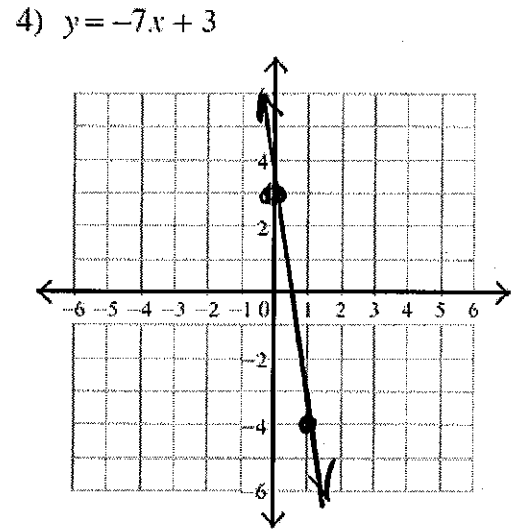
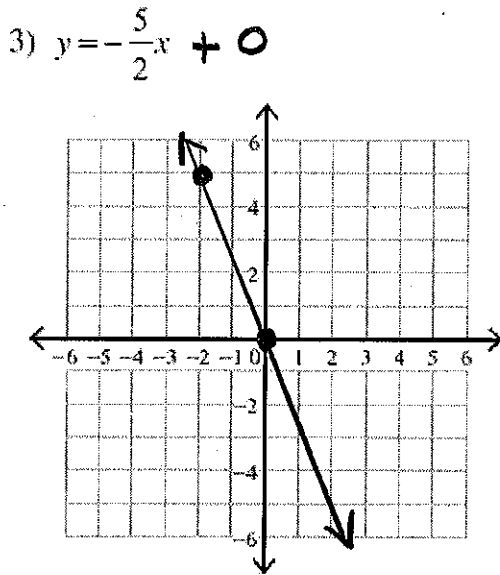
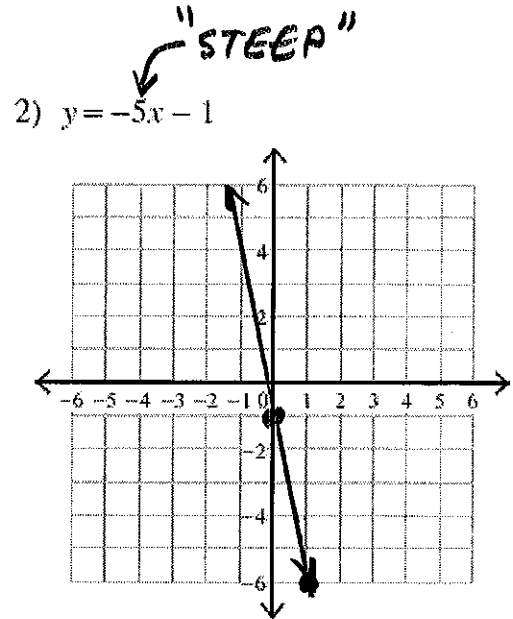
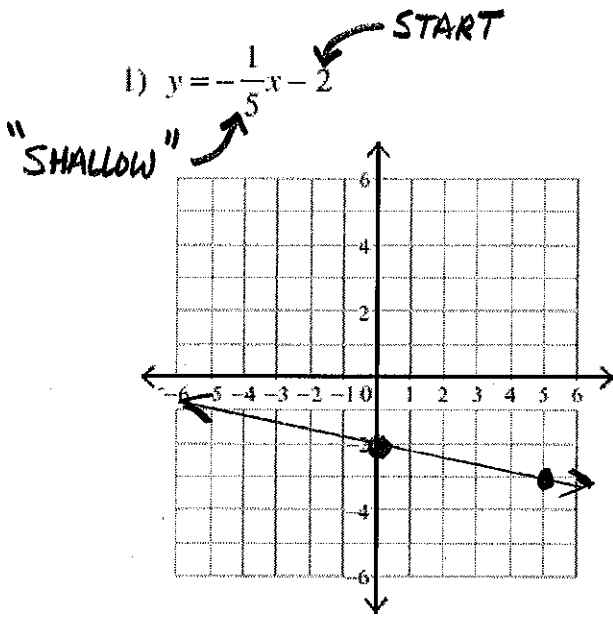
Instructions: Transform each equation **from** standard form ($Ax + By = C$) **to** slope-intercept form ($y = mx + b$). Show your work and box your answer.

1) $3x - 2y = -16$ $\frac{-2y}{-2} = \frac{-16 - 3x}{-2}$ $y = \frac{3}{2}x + 8$	2) $13x - 11y = -12$ $\frac{-11y}{-11} = \frac{-13x - 12}{-11}$ $y = \frac{13}{11}x + \frac{12}{11}$
3) $9x - 7y = -7$ $\frac{-7y}{-7} = \frac{-9x - 7}{-7}$ $y = \frac{9}{7}x + 1$	4) $x - 3y = 6$ $\frac{-3y}{-3} = \frac{-x + 6}{-3}$ $y = \frac{1}{3}x - 2$

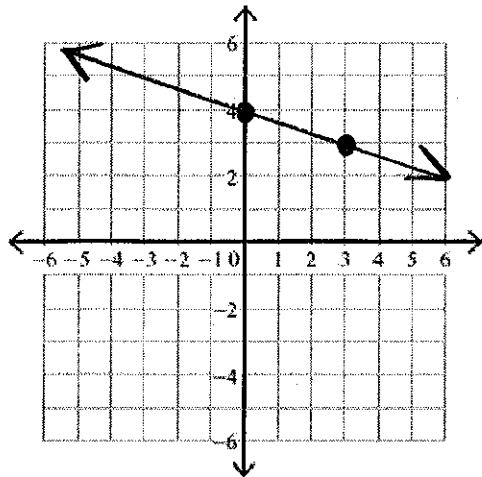
Instructions: Write an equation of a line in **slope-intercept form** according to each description below.

1) Passes through $(-3, 4)$ and $(1, 1)$ $m = \frac{4 - 1}{-3 - 1} = \frac{3}{-4}$ $1 = -\frac{3}{4}(1) + b \rightarrow b = \frac{7}{4}$ $4 = -3 + 4b$ $y = -\frac{3}{4}x + \frac{7}{4}$	2) Passes through $(2, 3)$ and $(7, 8)$ $m = \frac{8 - 3}{7 - 2} = \frac{5}{5} = 1$ $y = x + b$ $3 = 2 + b$ $b = 1$ $y = x + 1$
3) slope = $\frac{1}{4}$ and x-intercept $-4 \rightarrow (-4, 0)$ $y = \frac{1}{4}x + b$ $0 = \frac{1}{4}(-4) + b$ $0 = -1 + b$ $b = 1$ $y = \frac{1}{4}x + 1$	4) x-intercept = 5 and y-intercept = 8 $\hookrightarrow (5, 0) \quad \hookrightarrow (0, 8)$ $m = \frac{8 - 0}{0 - 5} = -\frac{8}{5}$ $y = -\frac{8}{5}x + 8$
5) passes through $(-3, 0)$ and $(0, -3)$ $m = \frac{-3 - 0}{0 - (-3)} = \frac{-3}{3} = -1$ $y = -x + b$ $0 = -(-3) + b$ $b = -3$ $y = -x - 3$	6) slope -3 and passing through $(4, 6)$ $y = -3x + b$ $6 = -3(4) + b$ $6 = -12 + b$ $b = 18$ $y = -3x + 18$

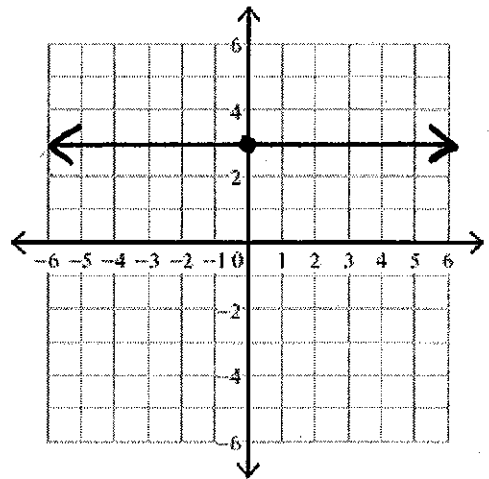
Instructions: Draw the graph of each equation in slope-intercept form. Use a STRAIGHTEDGE to draw the line.



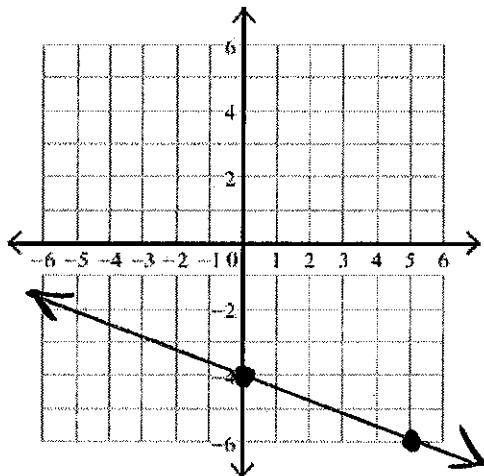
$$7) y = -\frac{1}{3}x + 4$$



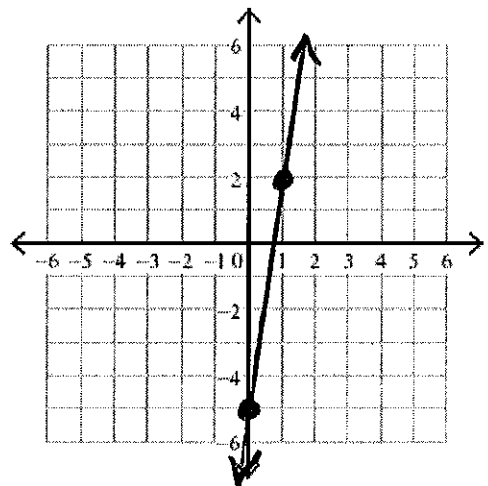
$$8) y = 3$$



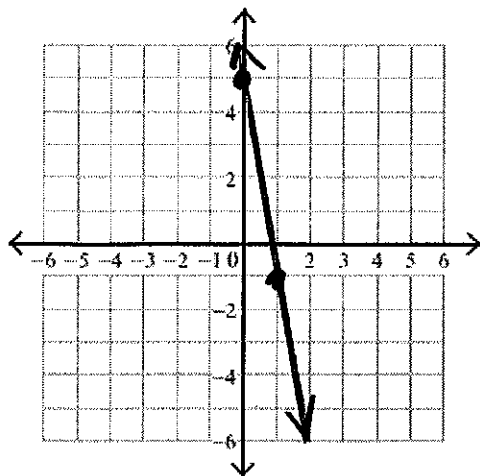
$$9) y = -\frac{2}{5}x - 4$$



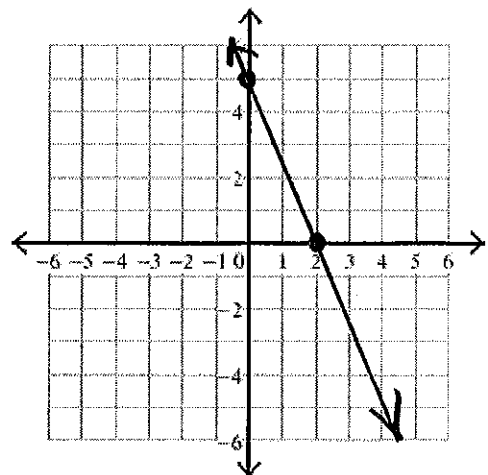
$$10) y = 7x - 5$$



$$11) y = -6x + 5$$

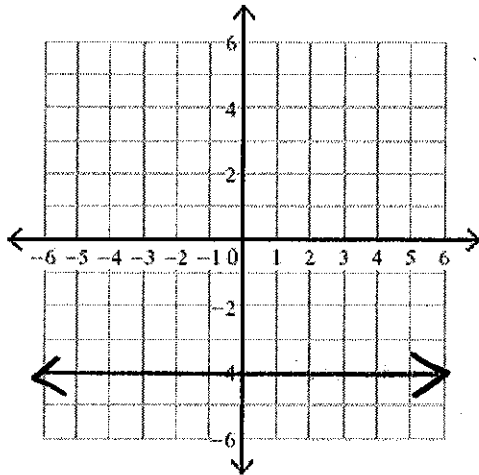


$$12) y = -\frac{5}{2}x + 5$$

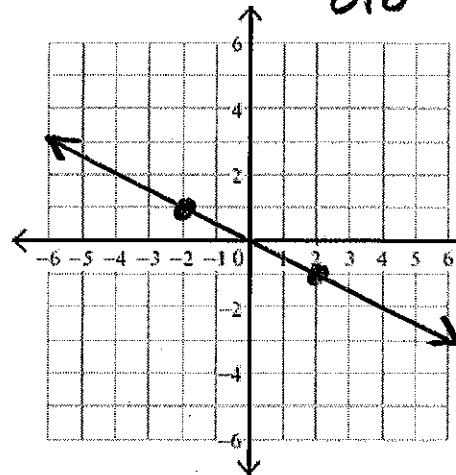


Instructions: Graph each standard form equation. You may use a T-chart to create two points or transform the equation into slope-intercept form first. Use a straightedge to draw the line.

7) $y = -4$

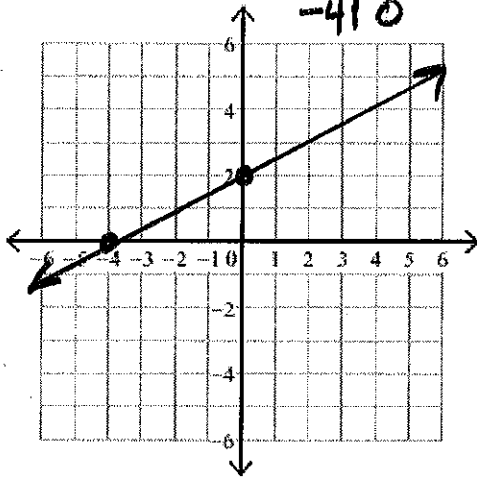


8) $x + 2y = 0$



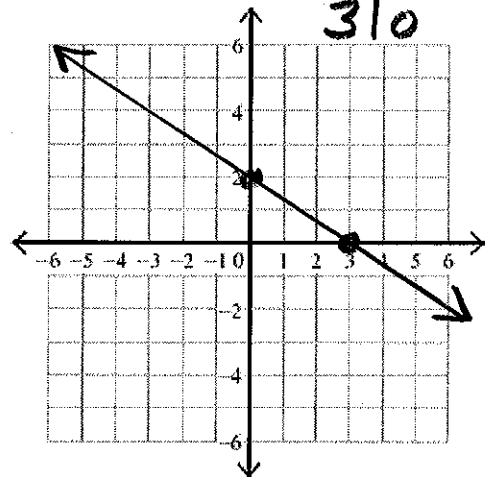
$\begin{array}{c|c} x & y \\ \hline 0 & 0 \\ 0 & 0 \end{array} \Rightarrow \text{WHAT NOW?}$
 \downarrow
 $\begin{array}{c|c} x & y \\ \hline -2 & 1 \\ 2 & -1 \end{array}$

9) $x - 2y = -4$



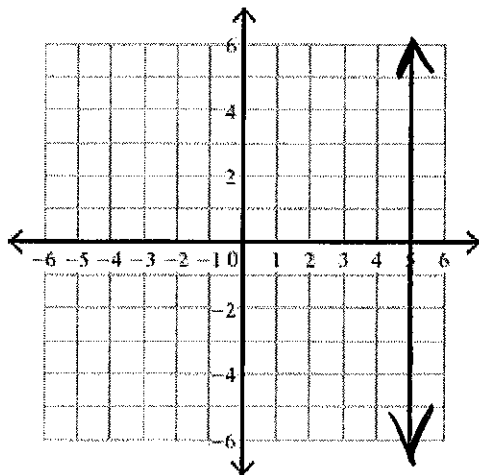
$\begin{array}{c|c} x & y \\ \hline 0 & 2 \\ -4 & 0 \end{array}$

10) $2x + 3y = 6$

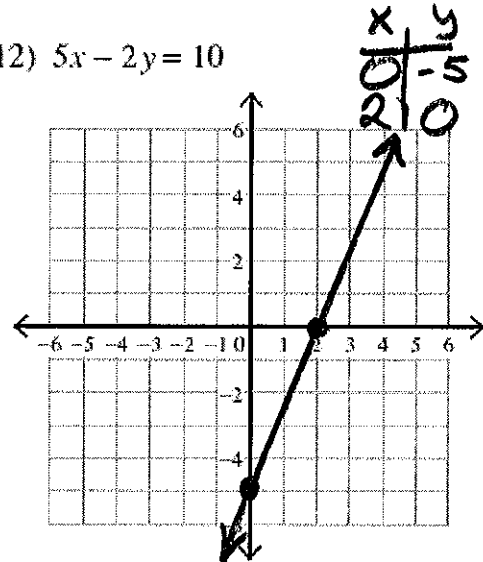


$\begin{array}{c|c} x & y \\ \hline 0 & 2 \\ 3 & 0 \end{array}$

11) $x = 5$



12) $5x - 2y = 10$



$\begin{array}{c|c} x & y \\ \hline 2 & 0 \\ 0 & -5 \end{array}$