

Quiz 5.16.14 A key

Friday, May 16, 2014

Boss Mathematician Key

Period _____

1) Simplify $3(-2x + 5) - 4(3x - 5)$
 $-6x + 15 - 12x + 20$
 $-18x + 35$

2) Solve $3x + 7 = 5x - 3$
 $-5x - 5x$
 $-2x + 7 = -3$
 $-2x = -10$
 $x = 5$

3) Identify the slope and y-intercept of the linear equation

$-3x + 5y = -20$

$5y = 3x - 20$
 $y = \frac{3}{5}x - 4$

$m = \frac{3}{5}$
 $b = -4$

4) Solve $\frac{2}{5}x - 4 = \frac{2}{3}$
 $\frac{2}{5}x = \frac{2}{3} + \frac{4 \cdot 3}{1 \cdot 3}$
 $\frac{2}{5}x = \frac{2}{3} + \frac{12}{3}$
 $\frac{2}{5}x = \frac{14}{3}$
 $x = \frac{35}{3}$
 $x = 11 \frac{2}{3}$

5) **Candy Shop:** Charlie went to the chocolate factory and purchased gobstoppers and gummy bears. He purchased 14 items and spent \$11.25. If each gobstopper costs \$1 and a bag of gummy bears costs 75 cents, how many of each candy did Charlie buy?

$-(g + b = 14) \rightarrow$
 $1g + .75b = 11.25$

$+ \begin{matrix} -1g \\ 1g + .75b = 11.25 \end{matrix} - b = -14$
 $- .25b = - 2.75$
 $b = 11$
 $g = 3$

Charlie bought 3 gobstoppers and 11 gummy bears

6) Graph the system of inequalities

$y \geq -4x + 3$
 $y < \frac{2}{3}x - 2$



