

Algebra 1 Quiz 9.6.13 (A)

Stellar Solver Key Block \_\_\_\_\_

Solve the equations

$$1. \quad 3x - 8 = 13$$

$$\quad \quad \quad \begin{array}{r} +8 \quad +8 \\ \hline \end{array}$$

$$\left(\frac{1}{3}\right) 3x = 21 \left(\frac{1}{3}\right)$$

$$\boxed{x = 7}$$

$$2. \quad 4 = 10 - \frac{2}{5}x$$

$$\quad \quad \quad \begin{array}{r} -10 \quad -10 \\ \hline \end{array}$$

$$\left(\frac{-5}{2}\right) -6 = \left(\frac{-5}{2}\right) -\frac{2}{5}x$$

$$\boxed{15 = x}$$

$$3. \quad \left(\frac{1}{2}\right)(4x - 6) = 12$$

$$\quad \quad \quad \begin{array}{r} 2x + -3 \\ \hline \end{array}$$

$$\left(\frac{1}{2}\right) 2x = 15 \left(\frac{1}{2}\right)$$

$$\boxed{x = \frac{15}{2}}$$

$$4. \quad 3(x + 2) - 4(2x - 3) = -7$$

$$\quad \quad \quad \begin{array}{r} 3x + 6 + -8x + 12 \\ \hline \end{array}$$

$$\quad \quad \quad \begin{array}{r} -5x + 18 \\ \hline \end{array}$$

$$\quad \quad \quad \begin{array}{r} -5x + 18 = -7 \\ \hline \end{array}$$

$$\quad \quad \quad \begin{array}{r} +18 \quad +-18 \\ \hline \end{array}$$

$$\left(\frac{-1}{5}\right) -5x = -25 \left(\frac{-1}{5}\right)$$

$$\boxed{x = 5}$$

5. **Cell Phones** Sprint has an offer where you pay \$20 for service plus \$0.10 per each text that you make.

Let C = cost for 1 month and t = # of texts.

a. What is the cost if you make 200 texts.

$$C = 20 + 0.10(200)$$

$$C = 20 + 20$$

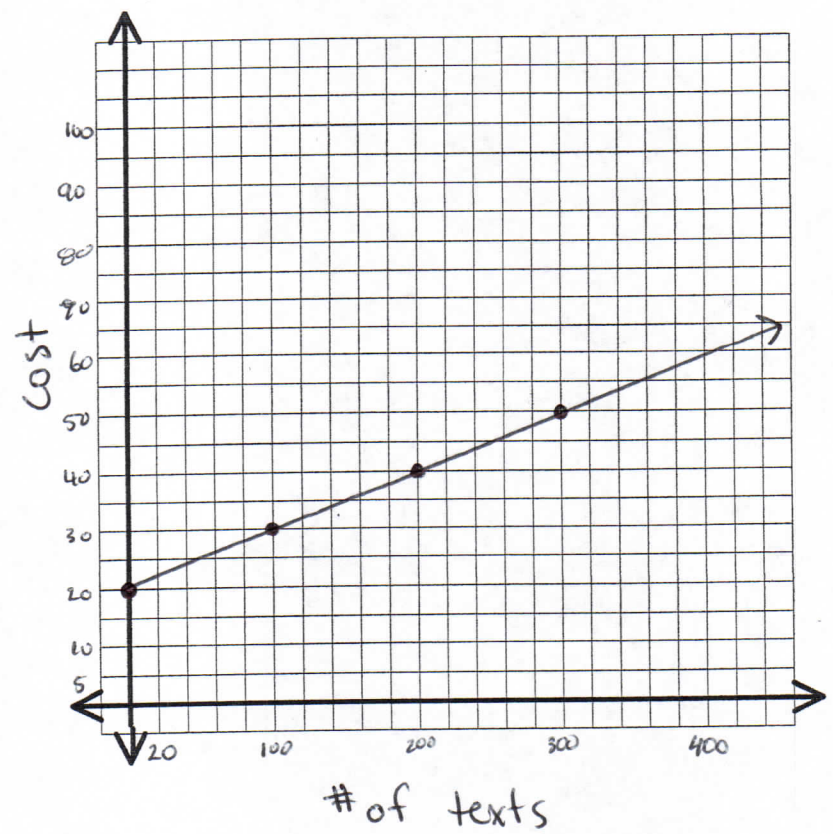
$$\boxed{C = \$40}$$

b. Write an equation for the cost of calls using Sprint's plan.

$$C = 20 + 0.10(t)$$

c. Make a table and graph your equation. (hint: use 0, 100, 200, 300 ... for the number of texts)

t	C
0	20
100	30
200	40
300	50



Label axes on your graph well!!!!

Solve the equations

$$1. \quad 3x - 9 = 15$$

$$\quad \quad \quad \begin{array}{r} +9 \quad +9 \\ \hline \end{array}$$

$$\left(\frac{1}{3}\right) 3x = 24 \left(\frac{1}{3}\right)$$

$$\boxed{x = 8}$$

$$2. \quad 2 = 10 - \frac{4}{5}x$$

$$\quad \quad \quad \begin{array}{r} -10 \quad -10 \\ \hline \end{array}$$

$$\left(\frac{-5}{4}\right) - \frac{8}{1} = \left(\frac{-5}{4}\right) - \frac{4}{5}x$$

$$\boxed{10 = x}$$

$$3. \quad \left(\frac{1}{2}\right)(6x - 4) = 10$$

$$\quad \quad \quad \begin{array}{r} 3x + -2 \\ \hline \end{array}$$

$$\quad \quad \quad \begin{array}{r} +2 \quad +2 \\ \hline \end{array}$$

$$\left(\frac{1}{3}\right) 3x = 12 \left(\frac{1}{3}\right)$$

$$\boxed{x = 4}$$

$$4. \quad 3(x + 2) - 4(2x - 3) = -7$$

$$\quad \quad \quad \begin{array}{r} 3x + 6 + -8x + 12 \\ \hline \end{array}$$

$$\quad \quad \quad \begin{array}{r} -5x + 18 \\ \hline \end{array}$$

$$\quad \quad \quad \begin{array}{r} + -18 \quad + -18 \\ \hline \end{array}$$

$$\left(\frac{-1}{5}\right) - 5x = -25 \left(\frac{-1}{5}\right)$$

$$\boxed{x = 5}$$

5. **Cell Phones** Sprint has an offer where you pay \$10 for service plus \$0.20 per each text that you make.

Let C = cost for 1 month and t = # of texts.

a. What is the cost if you make 200 texts.

$$C = 10 + 0.20(200)$$

$$C = 10 + 40$$

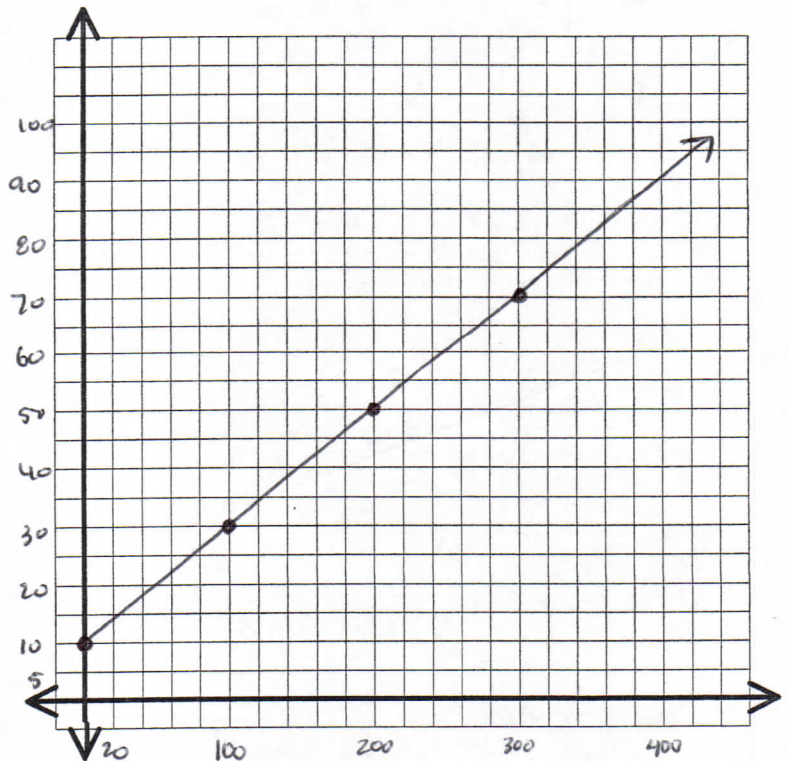
$$\boxed{C = \$50}$$

b. Write an equation for the cost of calls using Sprint's plan.

$$c = 10 + 0.20(t)$$

c. Make a table and graph your equation.  
(hint: use 0, 100, 200, 300 ... for the number of texts)

t	c
0	10
100	30
200	50
300	70



Label axes on your graph well!!!!