

Friday, April 12, 2019

- Warm-up
 - Kona coffee sells for \$51 per pound and Colombian coffee sells for \$11 per pound. Sylvia wants to mix these two types of coffee to create 100 pounds of Breakfast Blend coffee that will sell for \$25 per pound.
 - Write a system of equations that would describe this situation
 - How much would the 100 pound mix cost?
- Questions
- Test

Objectives

Content: I will demonstrate my knowledge of **systems of equations** on the test today.

Social: I will be part of a **conducive testing environment** so that everyone can be successful on the test.

Language: I will read questions carefully and answer them fully on the test so that I can be successful.

Warm-up

Kona coffee sells for \$51 per pound and Colombian coffee sells for \$11 per pound. Sylvia wants to mix these two types of coffee to create 100 pounds of Breakfast Blend coffee that will sell for \$25 per pound.

Write a system of equations that would describe this situation

How much would the 100 pound mix cost? $\times 25$ \$2,500

weight

$$\begin{cases} k + c = 100 \\ 51k + 11c = 2500 \end{cases}$$

\$

$$51k + 11c = 2500$$

$35 + 65 = 100$
 $100 = 100$
 $51(35) + 11(65) = 2500$
 $2500 = 2500$

$$\begin{array}{r} -11k - 11c = -1100 \\ + 51k + 11c = 2500 \\ \hline 40k = 1400 \\ \frac{40k}{40} = \frac{1400}{40} \\ k = 35 \end{array}$$

$$\begin{array}{r} 35 + c = 100 \\ -35 \quad -35 \\ \hline c = 65 \end{array}$$

There are 35 pounds of Kona and 65 pounds of Colombian in the Breakfast Blend.

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Questions

$$2x + 3y = 12$$

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

$y = mx + b$

slope = $\frac{1}{2}$ rise / run

$$2x + 3y = 12$$

$$-2x \quad -2x$$

$$3y = -2x + 12$$

$$\frac{3y}{3} = \frac{-2x + 12}{3}$$

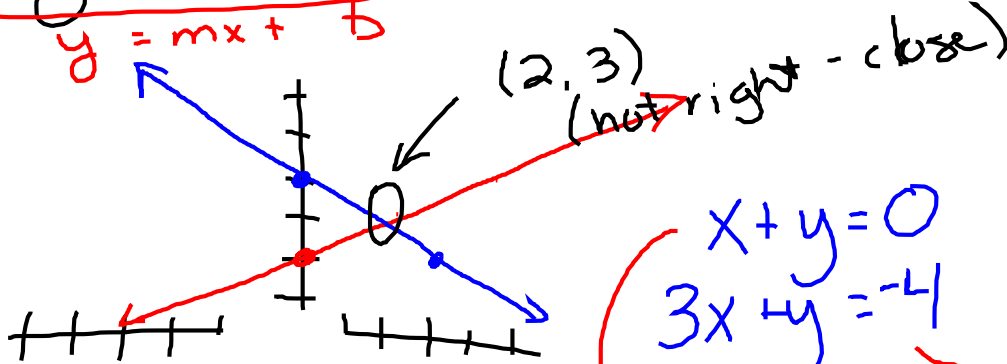
$$y = -\frac{2}{3}x + 4$$

$$-x = 4 - 3x$$

$$+3x \quad +3x$$

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

$$x = -2$$



$$x + y = 0$$

$$3x + y = -4$$

$$x + y = 0$$

$$-x \quad -x$$

$$y = -x$$

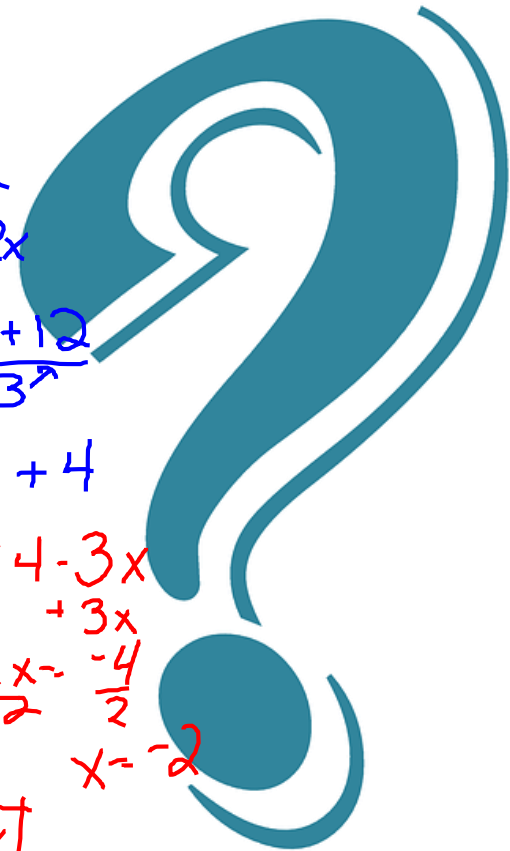
$$3x + y = -4$$

$$-3x \quad -3x$$

$$y = -4 - 3x$$

$0 = 0$
infinite solutions

$5 = 4$
no solutions



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