

Algebra 1 Bellwork Monday, February 29, 2016

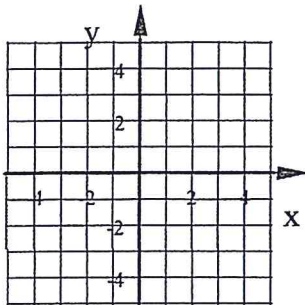
1. You think that the perfect mix for chocolate milk is when the milk contains 42% chocolate. In the refrigerator you have some chocolate milk that is 32% chocolate and some that is 48% chocolate. Write and solve a system of equations to find the number of ounces of each of these should you mix in order to get 50 ounces of your perfect mixture.

ounces of ³²/₃₄% =

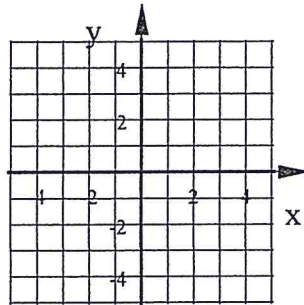
ounces of 48% =

2. Graph each inequality on the x-y plane. Shade the solution region with a highlighter or colored pencil.

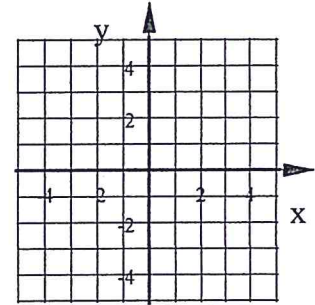
a) $y < -4x - 3$



b) $24x - 16y \geq -48$



c) $x \leq 3$



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Answers

1. You think that the perfect mix for chocolate milk is when the milk contains 42% chocolate. In the refrigerator you have some chocolate milk that is 32% chocolate and some that is 48% chocolate. Write and solve a system of equations to find the number of ounces of each of these should you mix in order to get 50 ounces of your perfect mixture.

X ounces of ³²/₃₄% = 18.75
Y ounces of 48% = 31.25

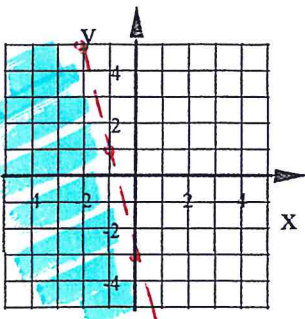
$$\begin{aligned} .48(x + y) &= 50 \\ .32x + .48y &= .42(50) \end{aligned}$$

$$\begin{aligned} .48x + .48y &= 24 \\ .32x + .48y &= 21 \\ \hline .16x &= 3 \\ x &= 18.75 \end{aligned}$$

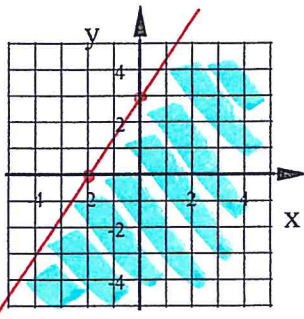
$$y = 50 - 18.75 = 31.25$$

2. Graph each inequality on the x-y plane. Shade the solution region with a highlighter or colored pencil.

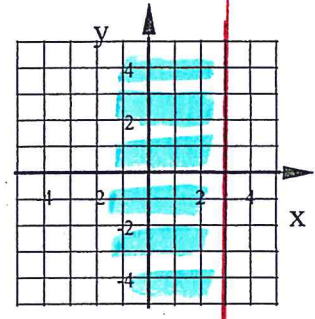
a) $y < -4x - 3$



b) $24x - 16y \geq -48$



c) $x \leq 3$



$$x\text{-int} = \frac{-48}{24} = -2$$

$$y\text{-int} = \frac{-48}{-16} = 3$$

TEST (0,0) 0 - 0 ≥ -48 TRUE ✓