

## Clearing Equations of Fractions/Decimals

"CLEAR" all decimals and fractions by multiplying the entire equation by the same number.

$$y = \frac{3}{4}x - \frac{3}{8}$$

$$8y = \frac{24}{4}x - \frac{24}{8}$$

$$8y = 6x - 3$$

$$60x + 32y = 124$$
  

$$\frac{2}{3}x - \frac{4}{5}y = \frac{1}{6}$$

$$10y = 4x - 45$$

$$\frac{60}{3}x - \frac{120}{5}y = \frac{30}{6}$$

$$20x - 24y = 5$$

Try this: Clear the fractions/decimals from the equations.

$$1. \left( \frac{4}{3}x - \frac{2}{5}y = \frac{17}{2} \right)$$

$$40x - 12y = 255$$

$$2. (403x + 213 = 45)$$

$$403x + 213 = 450$$

## Algebra I 6.3 Write Equations in Standard Form

**STANDARD FORM:**

$$Ax + By = C$$

where A & B cannot both be zero.  
No Fractions/Decimals

Example 1: Rewrite each equation of the line in standard form.

$$a) y = \frac{2}{3}x - 6$$

$$3\left(\frac{2}{3}x + y = -6\right)$$

$$2x + 3y = -18$$

$$b) y = \frac{3}{4}x + \frac{2}{5}$$

$$20\left(\frac{3}{4}x + y = \frac{2}{5}\right)$$

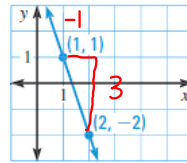
$$-15x + 20y = 8$$

$$c) y - 4 = 3(x - 2)$$

$$y - 4 = 3x - 6$$

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

Example 2: Write an equation in standard form of the line shown.



STEP 1 Calculate the slope.

STEP 2 Write an equation.

STEP 3 Rewrite the equation in standard form.

$$y - y_1 = m(x - x_1)$$

$$y - 1 = -3(x - 1)$$

$$y - 1 = -3x + 3$$

$$y + 1 = -3x + 3 + 1$$

$$y + 1 = -3x + 4$$

$$3x + y = 4$$

YOU TRY!!!

1. Write the standard form of the equation of the line that goes through the points (3, -1) and (2, -3)

$$\frac{-3 + 1}{2 - 3} = \frac{-2}{-1} = 2$$

$$y + 1 = 2(x - 3)$$

$$y + 1 = 2x - 6$$

$$y = 2x - 7$$

$$-2x + y = -7$$

# Homework:

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