

Lesson 3-12 \rightarrow Standard Form $ax+by=c$ Equations

$$y = mx + b$$

is the "slope-intercept" ~~form~~ equation

good for knowing slope (m)

good for knowing initial value (b)

$$ax + by = c$$

is the "Standard Form"

good for hmmm

$$ax + by = c$$

positive
whole
number \rightarrow

whole
numbers \rightarrow
preferred \rightarrow

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

$$-\frac{3}{4}x \quad -\frac{3}{4}x$$

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

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

$$3x - 4y = 20$$

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

$$-4y = -3x + 20$$

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

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

Standard Form in Word Problems

You buy 20 bags of chips and 25 granola bars for a total cost of \$52.50.

Write an equation where x is the cost of ~~each~~ each bag of chips and y is the cost of each granola bar.

$$20x + 25y = 52.5$$