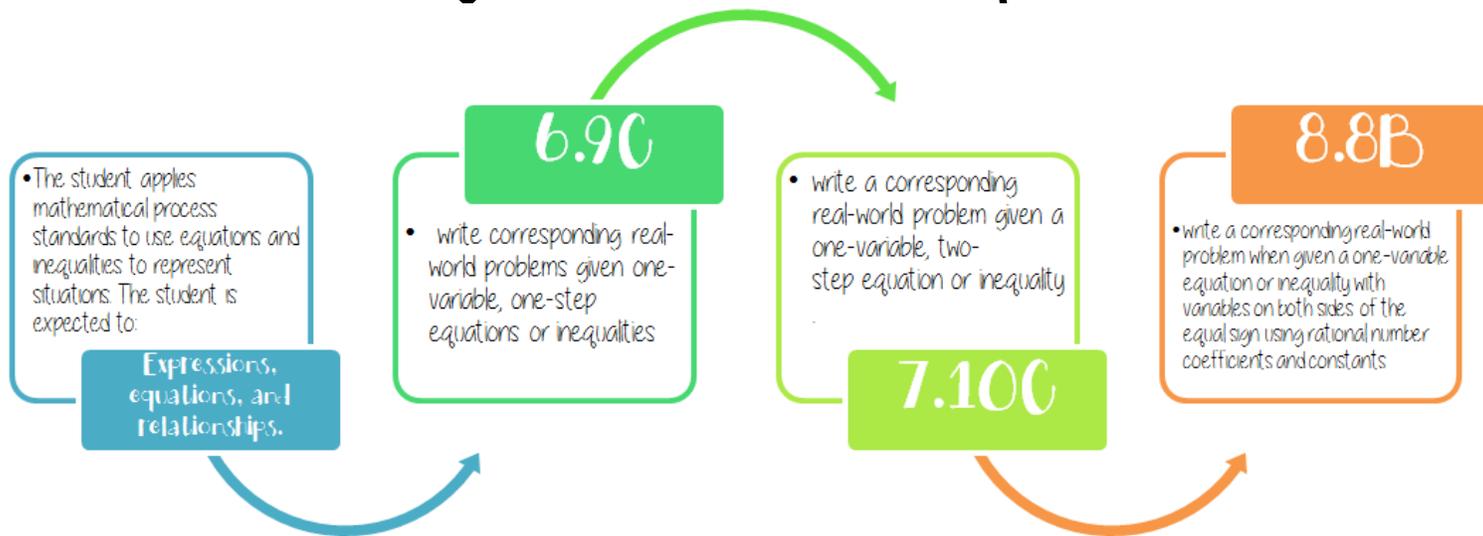


# Writing Word Problems from Equations



My teacher's learning goals for me are that I will be able to:

- determine if the equation represents a proportional or non-proportional relationship.
- analyze the equation and identify the y-intercept,  $b$ 
  - decide on a real-world situation that will represent the y-intercept.
- analyze the equation and identify the constant of proportionality,  $k$ 
  - decide on a real-world situation that will represent the k-value.
- Write a real-world problem that represents the equation.
- Solve the equation to calculate the value of the variable.

I will master the **learning goals** for **Writing Word Problems** with at least \_\_\_\_\_ mastery by:

- 1) Asking questions when I'm not sure of something and answering questions when I know the answer.
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

## How to make up real-world situations and how to identify the constant of proportionality, $k$ , from an equation:

In an equation, the constant of proportionality,  $k$ , is the value being multiplied with the  $x$  in  $y = kx$ .

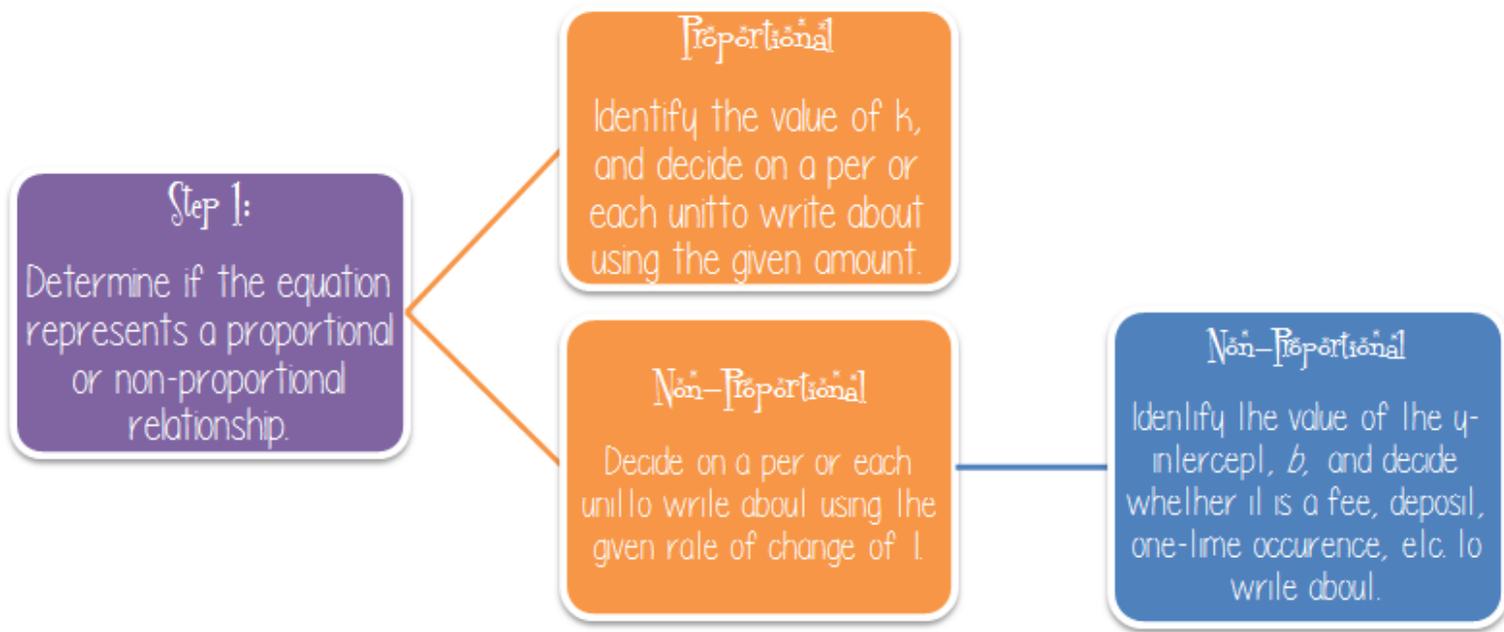
When making up a word problem, remember the  $k$ -value is represented by the constant rate of change. It is most commonly the amount that is going to continue repeating and is often associated with the words: "per" or "each."

## How to make up real-world situations and how to identify the y-intercept, $b$ , from an equation:

In an equation, the y-intercept,  $b$ , is the number being added or subtracted in  $y = x + b$ .

When making up a word problem, keep in mind that the y-intercept is the one time occurrence which may be a fee, deposit, initial or beginning amount they already had prior to starting, etc...

# Steps for Writing Word Problems from Equations



**I do...** you follow along and process **Writing Real-World Problems from Equations**

A.  $8x = 24$

B.  $x + 50 = 425$

C.  $600 = 50x$

D.  $120 = 201 - x$