

# Word Problems? No Problem!

**Sarah R. Powell, Ph.D.**

srpowell@austin.utexas.edu

@sarahpowellhd

www.sarahpowellphd.com

E.

The number of blueberry muffins that a baker makes each day is 40% of the total number of muffins she makes. On Monday, the baker makes 36 blueberry muffins. What is the total number of muffins that the baker makes on Monday?

F.

An airplane's altitude changed  $-378$  feet over 7 minutes. What was the mean change of altitude in feet per minute?

G.

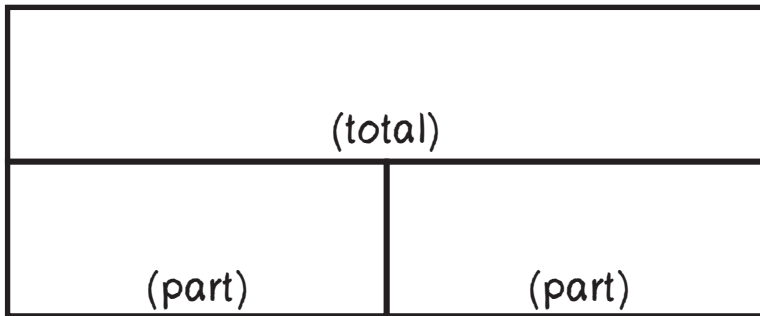
Sara buys a sweater at a department store. The sweater costs \$30. The store is having a 25% off sale on everything in the store. Enter the amount of money, in dollars, Sara saves from the sale. Do not consider the sales tax.

H.

Sam's two new aquariums each hold exactly 200 gallons of water. One aquarium will hold small fish and the other will hold large fish. Now he needs new fish for his aquarium. He will buy 5 small fish for every 10 gallons of water in the aquarium. He will buy 8 large fish for every 40 gallons of water in the aquarium. What is the total number of fish Sam will have? What will be the ratio of Sam's small fish to large fish?

# TOTAL

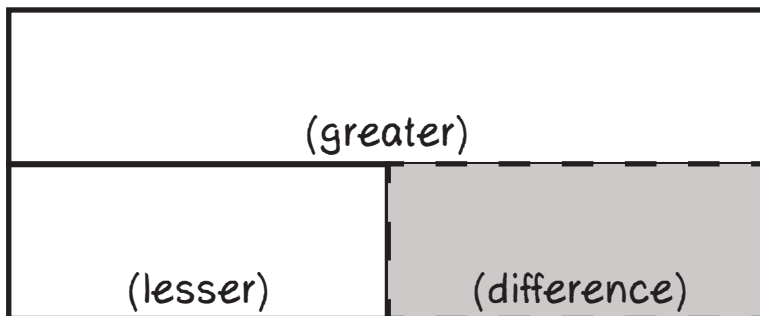
Are parts put together for a total?



$$P1 + P2 = T$$

# DIFFERENCE

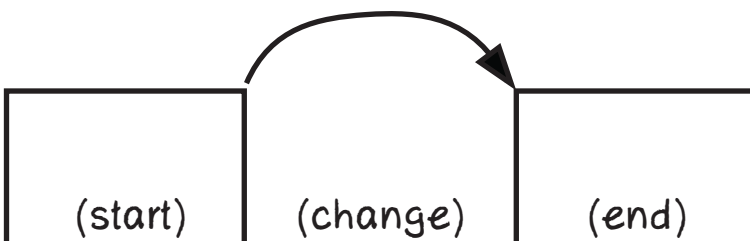
Are amounts compared for a difference?



$$G - L = D$$

# CHANGE

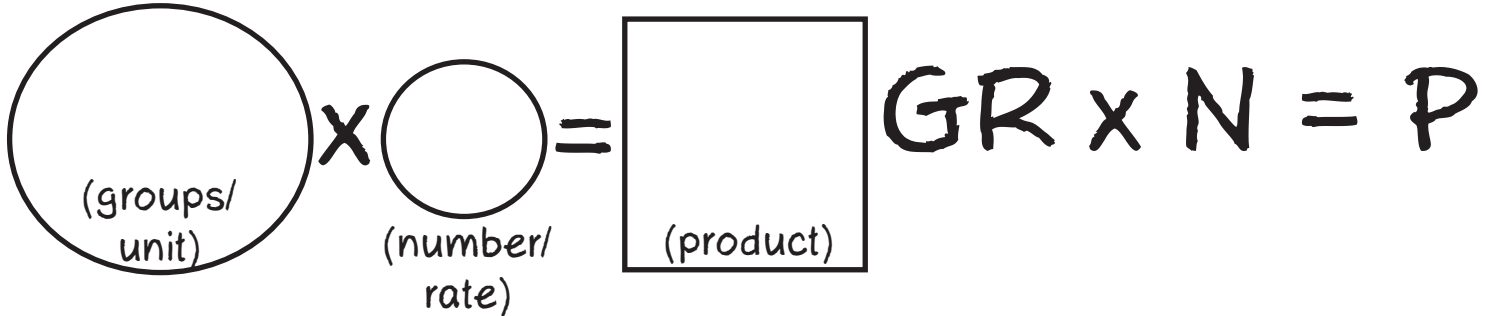
Does an amount increase or decrease?



$$ST +/- C = E$$

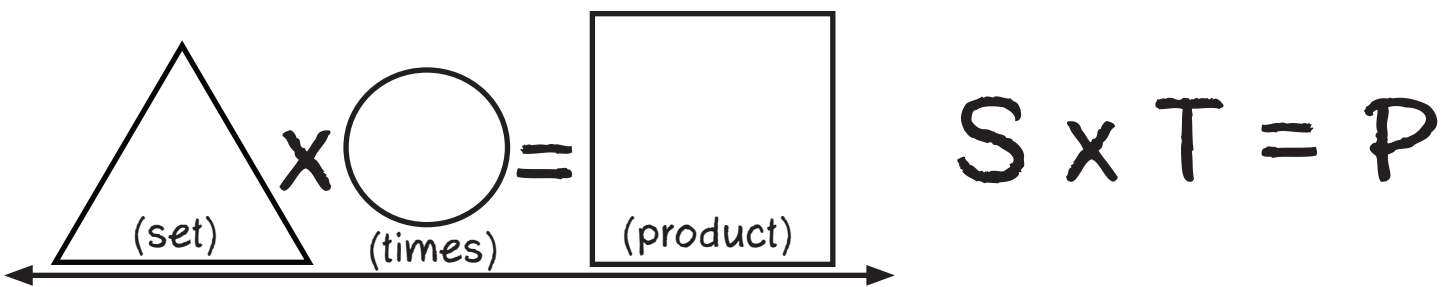
# EQUAL GROUPS

Are there groups with an equal number in each group?



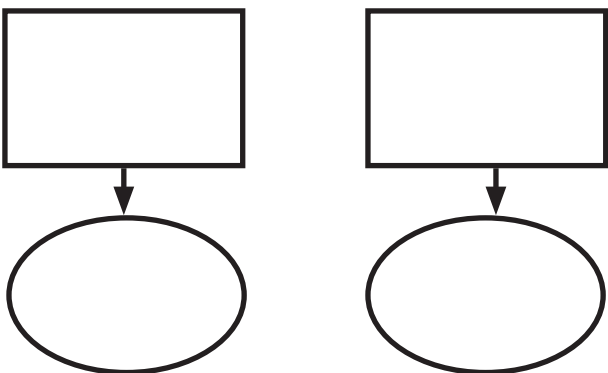
# COMPARISON

Is a set compared a number of times?



# RATIOS/PROPORTIONS

Are there relationships among quantities?



$$\frac{Q_1}{Q_2} = \frac{Q_3}{Q_4}$$

## Multi-Step Problems

A.

Leslie had 3 pizzas. Each pizza was cut into 8 pieces. Leslie ate 2 pieces. How many pieces were left?

B.

Mr. Kahn gave away 8 blue balloons and 6 red balloons. He gave away 3 times the number of white balloons as red balloons. What was the total number of balloons Mr. Kahn gave away?

C.

An egg farm packages 264 total cartons of eggs each month. The farm has 3 different sizes of cartons.

The small carton hold 8 eggs, and  $\frac{1}{6}$  of the total cartons are small.

The medium carton holds 12 eggs, and  $\frac{2}{3}$  of the total cartons are medium.

The large carton holds 18 eggs, and the rest of the total cartons are large.

Determine how many each size of carton is needed each month. Then determine how many eggs are needed to fill the 264 cartons.

## Multi-Step Problems

D.

Allison is saving to buy a \$500 bicycle by working during summer vacation. The job pays her \$8 for every 1 hour worked. Allison works exactly 20 hours each week. If she works for 4 weeks and buys the bicycle, how much money will she have left over?

E.

Jessica rented 1 video game and 3 movies for a total of \$11.50. The video game cost \$4.75 to rent. The movie costs the same amount each to rent. What amount, in dollars, did Jessica pay to rent each movie?

F.

Sal exercised by stretching and jogging 5 days last week. He stretched for a total of 25 minutes during the week. He jogged for an equal number of minutes each of the 5 days. He exercised for a total of 240 minutes.

Elena also exercised by stretching and jogging 5 days last week. She stretched for a total of 15 minutes during each day. She jogged for an equal number of minutes each of the 5 days. She exercised for a total of 300 minutes.

Determine the number of minutes Sal jogged each day last week and the number of minutes Elena jogged each day last week.