

General Topics

How do I solve word problems?

To solve word problems you need to answer at least three questions:

- 1.) What numbers are needed to answer the question?
- 2.) What mathematical operation(s) are needed to arrive at an answer?
- 3.) Does your answer make sense?

2.) What mathematical operation(s) are needed to arrive at an answer?

In other words, you need to decide if you will add, subtract, multiply, or divide.

Let's practice determining the correct mathematical operation(s) by identifying words that indicate addition, subtraction, multiplication, and division and identifying typical situations where a given operation is used.

Multiplication

Multiplication is often used as a shortcut to repetitious addition problems. Usually you have a situation where you have 1 (one) of something and want the total of many.

Example

What is the total weight of twenty-five 10.5 lb packages?

You could add: $10.5 + 10.5 + 10.5 + \dots + 10.5 = 262.5 \text{ lbs}$

Multiplication is better of course: $25 \times 10.5 = 262.5 \text{ lbs}$

Example

A holiday party of 45 guests is to be served by Speedy Catering Service. If each guest is to receive a 6 oz portion of sirloin steak, how many ounces of sirloin should Speedy Catering order for the party?

Certain words indicate that multiplication is required:

Example

When at the NorthTowne Mall, Jill saw a jacket she wanted for \$65. At another store, the asking price was twice as much. How much was the jacket at the other store?

Example

At a managers meeting, Daryl stated that by the end of next year, international sales should be four times higher than they are now. If international sales are at \$1,200,000 this year, what will they be next year if Daryl is correct?

Other key words are:

Multiplied, total, of, as much, product