

SOLVING MATH WORD PROBLEMS



Two steps to solving math word problems:

1. Translate the wording into a numeric equation that combines smaller “expressions”
2. Solve the equation!

Suggestions

- Read the problem entirely and get a feel for the whole problem
- List information and the variable you identify. Attach units of measure to the variables (kilometers, miles, inches, gallons, liters, etc.)
- Define what answer you need, as well as its units of measure
- Work in an organized manner. Working clearly will help you think clearly
 - Draw and label graphs and pictures clearly
 - Note or explain each step of the process - this will help you track variables and remember their meanings
- Look for the “key” words (below)

Certain words indicate mathematical operations...

Function	Symbol	Key words for the function
Addition	+	Increased by; more than; combined together; total of; sum; added to
Subtraction	-	Less than; fewer than; reduced by; decreased by; difference of
Multiplication	* or x or integers next to each other, such as: 5y, xy	Of; times; multiplied by
Division	÷ or /	Per; a; out of; ratio of; quotient of; percent (divided by 100)

Examples

Word	Function	Example...
Per	Division	<input type="checkbox"/> “I bought a 40 pack of Timbits for \$8.00. So, that’s \$0.20 per Timbit.” <input type="checkbox"/> This can also be written as: “\$0.20/Timbit” or “\$0.20 per Timbit”.
A	Division	<input type="checkbox"/> “When I filled up my car’s tank, I paid \$10.50 for three gallons of gasoline. So, I paid \$3.50 a gallon.” <input type="checkbox"/> This can also be written as: “\$3.50/gallon” or “\$3.50 per gallon”.
Quotient/ ratio of...	Division	<input type="checkbox"/> “The ratio of students to each Professor was 45 to 1”. <input type="checkbox"/> This can also be represented as: “X divided by Y” or “X/Y” or “X÷Y”
Difference between/ of...	Subtraction	<input type="checkbox"/> “They paid me \$40.00 for a \$28.25 bill. I owe them the difference of \$11.75.” <input type="checkbox"/> This can also be represented as: “X – Y”.
Less than...	Subtraction	<input type="checkbox"/> “She earns \$1.50 an hour less than me. I earn \$17.00 an hour.” This can be represented as: “\$17.00/hour - \$1.50/hour = \$15.50/hour”.