



Math Clue Words/Phrases for Word Problems

Kids-If you are not sure how to solve a word problem, check this chart for "Clue Words" that may help you decide what to do.

<u>ADD</u>	<u>SUBTRACT</u>	<u>MULTIPLY</u>	<u>DIVIDE</u>	<u>ESTIMATE</u>	<u>EQUALS</u>
In all	Difference	Product	Split	About	Is
Increase	Take Away	Area	Quotient	Guess	Gives
Gain	Left	Squaring	Separates	Round	Yields
Altogether	Minus	of	Each group has	Approximate	Sold for
Sum	Less	Double	per	Almost	The same as
Plus	Decrease	Triple	Equally share something		
Total	How Many More	Factor			
Perimeter	Change	Discount			
Combined	Fewer	Tax			
		Tip			



Common Measurement Conversions

Length:

Customary System

12 inches = 1 foot

3 feet = 1 yard

5,280 feet = 1 mile

Metric System

10 millimeters = 1 centimeter

100 centimeters = 1 meter

1,000 meters = 1 kilometer

Volume:

Customary System

8 fluid ounces = 1 cup

2 cups = 1 pint

2 pints = 1 quart

4 quarts = 1 gallon

Metric System

1,000 milliliters = 1 liter

Weight:

Customary System

16 ounces = 1 pound

2,000 pounds = 1 ton

Metric System

1,000 grams = 1 kilogram



Ballpark Comparisons for Measurement Conversions

Length:

1 inch = 2.5 centimeters [**the diameter of a quarter**]

1 meter is 39 $\frac{1}{4}$ inches, so it is a little longer than 1 yard.

[A doorway is about 1 yard in width.]

A mile is a little longer than 1 $\frac{1}{2}$ kilometers

Volume:

1 quart is a little less than 1 liter

1 liter is a little more than 1 quart

Weight:

1 ounce is about 28 grams [**1 slice of bread**]

1 nickel has the mass of about 5 grams

[1 gram is about the weight of a paperclip]

1 kilogram is a little more than 2 pounds



Benchmark Percents, Fractions, and Decimals

Memorizing the equivalent fraction, decimal, and percent benchmarks shown in this table will help you when solving many math problems.

Percent	Decimal	Fraction
10%	0.10	1/10
20%	0.20	1/5
25%	0.25	1/4
30%	0.30	3/10
33 $\frac{1}{3}$ %	≈ 0.33	1/3
40%	0.40	2/5
50%	0.50	1/2
60%	0.60	3/5
70%	0.70	7/10
75%	0.75	3/4
80%	0.80	4/5
90%	0.90	9/10
100%	1.00	1

Notice the patterns in this chart. For example, if you know $1/4 = 25\%$ and you know $3/4$ is 3 times as large as $1/4$, you can determine the percentage for $3/4$ by multiplying 25% by 3; $25\% \times 3 = 75\%$.



How to Find the Percent of a Number

Method 1: Relate the percent to a benchmark fraction:

Look on the Fraction, Decimal, and Percent Chart —is the percent you need there?
For example, if you need 40% of 80 you could multiply 80 by $\frac{2}{5}$ as $40\% = \frac{2}{5}$.

Method 2: Non-benchmark fractions

To find the percent of a number using multiplication with a decimal:

1. Convert the percent to a decimal by moving the decimal two places to the left. Remember, when you do not “see” the decimal, it is at the very right of the number.
2. Multiply the decimal and the given number

Example: To find 12% of 42

1. Rewrite 12% as 0.12
2. Multiply 42×0.12

$$\begin{array}{r} 0.12 \\ \times 42 \\ \hline 024 \\ 0480 \\ \hline 05.04 \end{array}$$

12% of 42 is 5.04