

NYS & CSEA Partnership

Working With Percents

In order to solve problems that involve percents, it is important to understand the relationship between percents and decimals.

- To convert a percent to a decimal, move the decimal point two places to the left:
 $20\% = .20$
- To convert a decimal to a percent, move the decimal point two places to the right:
 $.20 = 20\%$

Common Types of Percent Problems

1: What is 35% of 170?

Step 1: Convert the percent to a decimal by moving the decimal point two places to the left: $35\% = .35$

Step 2: Multiply 170 by $.35 = 59.5$

2: What percent of 180 is 36?

Step 1: To determine what percent of a total is represented by a certain part, you divide the part by the total: $36 \div 180 = .20$

Step 2: To convert this decimal to a percent, move the decimal point two places to the right: $.20 = 20\%$

3: The cost of a prescription increased from \$70 to \$105. What was the percent increase?

Step 1: To establish percent increase or decrease, first determine the amount of the increase or decrease. The cost of the prescription increased by \$35.

Step 2: Divide the amount of the increase by the original amount (NOT the ending amount):

$$35 \div 70 = .50$$

Step 3: To convert this decimal to a percent, move the decimal point two places to the right: $.50 = 50\%$

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Metric Conversions

To Convert	Multiply By
Inches to Centimeters	2.54
Feet to Meters	.3048
Yards to Meters	.91
Miles to Kilometers	1.609

To Convert	Multiply By
Centimeters to Inches	.3937
Meters to Feet	3.2808
Meters to Yards	1.09
Kilometers to Miles	.621

To Convert	Multiply By
Ounces to Grams	28.35
Ounces to Kilograms	.028
Pounds to Kilograms	.454

To Convert	Multiply By
Grams to Ounces	.035
Kilograms to Ounces	35.27
Kilograms to Pounds	2.205

To Convert	Multiply By
Drops to Milliliters	.0677
Teaspoons to Milliliters	5
Tablespoons to Milliliters	15
Liquid Ounces to Milliliters	29.57
Pints to Liters	0.473
Quarts to Liters	0.946
Gallons to Liters	3.785

To Convert	Multiply By
Milliliters to Drops	15
Milliliters to Teaspoons	.2
Milliliters to Tablespoons	.667
Milliliters to Liquid Ounces	.034
Liters to Pints	2.113
Liters to Quarts	1.057
Liters to Gallons	.264