



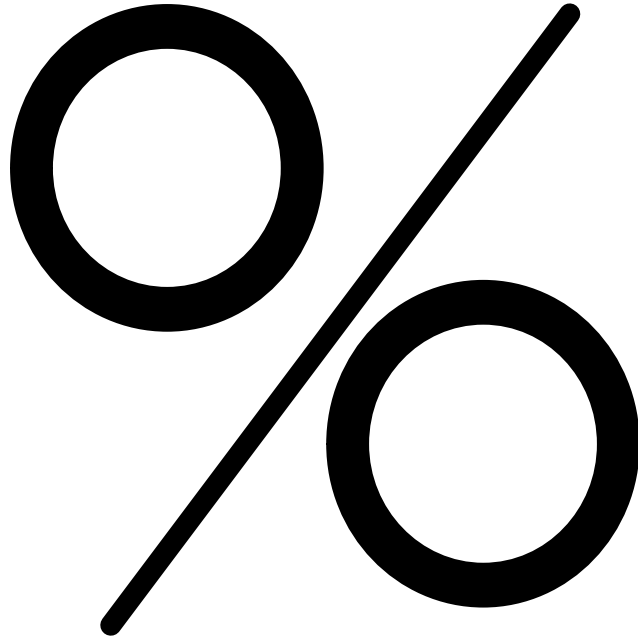
“I Don’t Get It!”

**The Middle School Math
Dictionary and
Instruction Manual**

By Nancy L. Wilkinson



Percents



Subject Area	Word	Definition
Percent	Decimal to Percent	<p><u>How to change a decimal to a percent</u></p> <p>1) Write down the decimal: 123.456</p> <p>2) Move the decimal place two places to the right. You are actually multiplying by 100.</p> 123.456 <p>3) 12345.6%</p>
Percent	Percent	<p><u>A ratio of an item compared to 100</u></p> <p>Example: 23% of the families live in the suburbs means that 23 out of every 100 families live in the suburbs.</p>
Percent	Percent – Finding the number when the percent is known	<p><u>How to find the number when the percent is known</u></p> <p>1) Write the problem as the part over the whole. Example: 25% of the students are in choir. There are 200 students in the choir. How many are in choir? $= \frac{\text{part}}{\text{whole}} = \frac{200}{n}$</p> <p>2) Create a proportion with the new fraction and the percent over 100. $\frac{200}{n} = \frac{25}{100}$</p> <p>3) Cross multiply</p> $\frac{200}{n} = \frac{25}{100} = 200 \cdot 100 = 25n$ $20000 = 25n$ <p>4) Solve the equation $20000 = 25n$ $20000 \div 25 = n$ $800 = n$</p>

“I Don’t Get It!”

Subject Area	Word	Definition
Percent	Percent of Change	<p><u>Percent something increases or decreases</u></p> <p>How to find the percent of change</p> <p>2) Write the problem as the amount of change over the original amount. Example: The rain in Jones town was 2” in 1995 and 3.2” in 1996. What is the percent of change from 1995 to 1996? = $\frac{\text{amount of change}}{\text{original amount}} = \frac{1.2}{2}$ (The change is from 2 to 3.2 inches or 1.2 inches).</p> <p>2) Create a proportion with the new fraction and the percent of change over 100. $\frac{1.2}{2} = \frac{n}{100}$</p> <p>3) Cross multiply $\frac{1.2}{2} = \frac{n}{100} = 1.2 \cdot 100 = 2n$ $120 = 2n$</p> <p>4) Solve the equation $120 = 2n$ $120 \div 2 = n$ $60 = n$ $60\% = n$</p>
Percent	Percent One Number is of Another Using Proportion	<p><u>How to find what percent one number is of another, using proportion</u></p> <p>1) Write the fraction as the part over the whole. Example: 25 students out of 30 had an A on the test. = $\frac{\text{part}}{\text{whole}} =$ $\frac{25}{30}$</p> <p>2) Create a proportion with the new fraction and $\frac{n}{100}$. $\frac{25}{30} = \frac{n}{100}$</p> <p>3) Cross multiply $\frac{25}{30} = \frac{n}{100} = 25 \cdot 100 = 30n$ $2500 = 30n$</p> <p>4) Solve the equation $2500 = 30n$ $2500 \div 30 = n$ $83.33 = n$</p> <p>5) The answer is the percent: 83.33%</p>

Subject Area	Word	Definition
Percent	Percent to a Proportion	<p><u>How to change from a percent to a proportion</u></p> <p>1) Write the percent as a proportion with the denominator as 100. This is because the percent represents the number out of 100.</p> $34\% = \frac{34}{100}$
Percent	Percent to Decimal	<p><u>How to change a percent to a decimal</u></p> <p>1) Write down the percent: 123.456%</p> <p>2) Move the decimal place two places to the left. You are actually dividing by 100.</p> 123.456 <p>3) 1.23456</p>