# Percents-A Review

**Complete the following:**

A percent is a way of representing a number out of ____. An easy way to remember that is to look closely at the percent symbol (%). You can see that the symbol can be rearranged to look like the number _____.

Any given percent value can be converted into two other equivalent values: a _____ and a _____. To convert a percent to a decimal, you can either divide the number by ____ or just move the decimal _____ places to the _____. To convert a percent to a fraction, because a percent is a number out of 100, you could write the percent as that number over ____ and reduce.

One-hundred percent of a number is equal to that number. For example, 100% of 50 is ____. As a result, 200% of a number would be _____ times the number. For example, 200% of 25 is _____. However, 50% of a number is _____ of the number. That is, 50% of 24 is _____. And 25% of a number is _____ of the number. So, 25% of 48 is _____. Lastly, $33\frac{1}{3}\%$ of a number is ____ of that number and $66\frac{2}{3}\%$ of a number is _____ of that number. For example, $33\frac{1}{3}\%$ of 15 is _____ and $66\frac{2}{3}\%$ of 15 is _____.

For decimals, to convert a decimal into a percent , you must either multiply the number by _____ or you can move the decimal _____ places to the _____. To make a decimal into a fraction, the number to the _____ of the decimal becomes the _____ number, and the number to the right becomes the _____ in the fraction. The denominator in the fraction is the _____ So, to write 5.24 as a fraction, the _____ is the whole number, _____ is the numerator, and _____ is the denominator. However, reduced, the final answer is _____. And 5.24 as a percent is _____%. It is important to remember that $0.\overline{3}$ is equal to _____% and _____ as a fraction. And $0.\overline{6}$ is equal to _____% and _____ as a fraction.

Fractions: To make a fraction a decimal, it is easiest to remember it like a grade on a quiz. If you earned an $\frac{22}{24}$ on a quiz and you wanted to know what that is as a grade, you would divide _____ into _____. That would represent a _____ and to find the percent you would move the decimal _____ places to the _____. So, 22 out of 24 is _____ as a decimal, and _____%.

# Percents-A Review

**PERCENT SENTENCES/EQUATIONS:**

Almost every percent problem can be fit into a percent sentence. That sentence is:

_____

Where the first part contains the _____. The second part contains the _____ or _____ and the last part contains the _____ or _____. Once the values have been placed into the sentence, then the next step is to translate the two words, "OF" and "IS" into a mathematical model. The word, "OF" is translated into the math operation:_____ and the word "IS" is translated into the symbol:_____.

If you have the percent given, it is necessary to change the percent into a _____ first. To do that, you move the decimal _____ places to the _____. You also place an "x" in the space that doesn't have a number.

With the sentence now rewritten into a math equation, you have to solve the equation. An easy way to remember what to do is if two numbers are next to each other (separated by the multiplication symbol) and the x is on the other side of the equal sign by itself, you just _____ the two numbers. However, if there is one number on one side of the equal sign, and on the other side of the equal sign there is a number multiplying the "x", then you must divide both sides by _____. Finally, if the unknown value is the percent in problem, then you have to take your answer and make it a percent. To do this, you must move the decimal _____ to the _____ and then put a "%" after it. Remember, each problem has only _____ percent value(s) in it, so don't move decimals more than once.

One problem that is a little more tricky is when you are given a new amount and an old amount. You can still use the percent sentence. To do this however, you have to remember to _____ the old and new amount and put that value in the spot after the word "_____" to represent the amount of change. The original amount goes in the spot after the word "_____". An example, what is the percent of change if an item used to cost $4 and now costs $6? The old amount is: _____ and the amount of change is:_____. The sentence would look like this:

_____ and the answer is:_____.