

NUMBERS AND PERCENTS

Numbers and percents refer to the relationship between fractions, decimals, and percents.

- A percent is a term that describes a decimal in terms of one hundred.
 Percent means per hundred.
- Percents, fractions and decimals all can equal each other, as in the case of 10%, 0.1 and 1/10.
- Fractions and decimals can easily be changed into percent.
- There are three cases of percent.



To **change a fraction to a decimal or percent**, the fraction must be put into terms of 100 if possible.

• For example, 3/4 changes into 75/100. Once it is in this form, it is changed into the decimal, .75 and the percent, 75%.

If the fraction cannot be put into terms of 100 easily, then divide the fraction to get into decimal form.

 For example, 16/27, when divided is .5925. Take the decimal form and move the decimal point two places to the right to find the percent.
 So .5925 becomes 59.25%.

With **decimals**, move the decimal point two places to the right to get the percent.



Using the **first of the three cases** of percent, a percentage of a number is taken.

• For example, what is 16% of 45? To find the answer, use the percent equation:

Ex.
$$x/45 = 16/100 \rightarrow 100x = (45)(16) \rightarrow 100x = 720 \rightarrow x = 7.2$$

Using the **second case of percent**, the percent is missing. Again the percent equation can be used.

 For example, if Ken got 78 out of 120 question correct on a test, what percent would that be?

Ex.
$$78/120 = x/100 \rightarrow (78)(100) = 120x \rightarrow 7800 = 120x \rightarrow x = 65$$



- 4. What is 44% as a fraction?
- 5. What is 25% of 82?
- 6. Five is what percent of 75?
- 7. Sixteen is 54% of what number?
- 8. If Roger got 33 questions correct out of 39 questions, what percent would that be?
- 9. If Dan fixes 64% or 7 of the cars at his shop, how many cars total did he need to fix?