

Understanding Percents

Percent is a common term in the business world. Commissions, interest, mark-ups, discounts, credit card charges, and tax rates are all calculated with percent.

Percent is one more way—besides fractions and decimals—of describing a part of a whole. Remember that with fractions, the denominator tells how many parts a whole is divided into. Any whole number except for zero can be a denominator. With decimals a whole is divided into tenths, hundredths, thousandths, ten-thousandths, and so on. Percent is more limited. With percent the whole is always divided into 100 parts. In fact, the word *percent* means “by the hundred or per one hundred.” Percent is shown with the sign %.

Think about these examples of percents.

EXAMPLES

35¢ is $\frac{35}{100}$ of a dollar or 0.35 of a dollar or 35% of a dollar

7 is $\frac{1}{2}$ of 14 or 0.5 of 14 or 50% of 14

9 is $\frac{1}{4}$ of 36 or 0.25 of 36 or 25% of 36

If a pizza is cut into eight slices and you have all eight slices, you have $\frac{8}{8}$ of the pizza or 1 whole pizza or 100% of the pizza.

Fill in each blank.

1. Percent means that a whole has been divided into _____ equal parts.
2. 49¢ is $\frac{49}{100}$ of a dollar or _____% of a dollar.
3. 75% of something means 75 of the _____ equal parts of something.
4. If every registered student attends a night class, you can say that _____% of the students are there.
5. If Gloria gets every problem right on a math quiz, you can say that she got _____% of the problems right.
6. If Bernard gets only half of the problems right on a math quiz, you can say that he got _____% of the problems right.

Changing Decimals to Percents

Percent is similar to a two-place decimal. To change a decimal to a percent, move the decimal point two places to the *right* and write the percent sign (%). If the decimal point moves to the end of the number, it is not necessary to write it. You may have to add zeros.

<u>EXAMPLES</u>	Decimal		Percent
	0.35	= 0.35	= 35%
	0.8	= 0.80	= 80%
	0.04	= 0.04	= 4%
	$0.12\frac{1}{2}$	= $0.12\frac{1}{2}$	= $12\frac{1}{2}\%$
	0.0007	= 0.00 07	= 0.07%

Write each decimal as a percent.

- $0.32 =$ $0.09 =$ $0.6 =$ $0.136 =$
- $0.005 =$ $0.37\frac{1}{2} =$ $0.08\frac{1}{3} =$ $0.045 =$
- $0.0016 =$ $0.0003 =$ $0.025 =$ $0.33\frac{1}{3} =$
- $0.125 =$ $0.0375 =$ $0.009 =$ $0.2 =$

5. See how quickly you can fill in the following tables. You will save time later if you memorize these common decimals and percents.

Decimal	Percent
0.1	
0.3	
0.7	
0.9	

Decimal	Percent
0.2	
0.4	
0.6	
0.8	

Decimal	Percent
0.01	
0.25	
0.5	
0.75	