
Section 7.4: Percents

- **Percents:** “per hundred”

$$34\% = 34 \text{ per } 100, \quad \frac{34}{100} = .34$$

NOTE: percents are alternative representations of fractions and decimals. Therefore, we should be able to convert between them.

- **Converting percents to fractions:** remember percents means “per hundred”.

$$42\% = \frac{42}{100}$$

- **Converting percents to decimals:** Move the decimal place two places to the left.

$$42\% = .42$$

- **Converting decimals to percents:** Move the decimal place two places to the right.

$$.365 = 36.5\%$$

- **Converting fractions to percents:** One method is to rewrite as an equivalent fraction with 100 in the denominator. The other method is to divide the numerator by the denominator and convert to a percentage.

$$\frac{1}{5} = \frac{20}{100} = .20$$

Examples:

1. 196 is 200% of ____.

2. 25% of 244 is _____.

3. 39 is _____% of 78.

4. 48% of what number is 178?

5. What percent of 2.5 is 5.2?
6. 6 is $\frac{1}{4}\%$ of what number?
7. A mathematics test had 80 questions, each worth the same value. Wendy was correct of 55 of the questions. What percent of the questions did she get correct?
8. A retailer sells a shirt for \$21.95. If the retailer marked up the shirt about 70%, what was his cost for the shirt?

9. Frank's salary is \$240 per week. He saves \$28 a week. What percent of his salary does he save?
10. In a class of 36 students, 13 were absent on Friday. What percent of the class was absent?
11. A volleyball team wins 105 games, which is 70% of the games played. How many games were played?
12. A refrigerator and range were purchased and a 5% sales tax was added to the purchase price. If the total bill was \$834.75, how much did the refrigerator and range cost?