

Chapter 5 Section 5

Ratio

Basic Concept notes:

- **What is a ratio? – A ratio is a comparison of two quantities.**
- **Formatting a ratio: we can write ratios in three ways:**
 - **Using fractions:**
Example: $\frac{7cars}{10cars} = \frac{7}{10}$
 - **Using a colon:**
Example: **7: 10**
 - **Using the word “to”:**
Example: **7 to 10.**

Note: Always keep a ratio in simplest form.

Example 1. A company spends \$20,000 a month for television advertising and \$15,000 a month for radio advertising. What, as a fraction in the simplest form, is the ratio of the cost of radio advertising to the total cost of radio and television advertising?

Strategy: translate the sentence into a formula

Because the question ask you to find the ratio of the cost of radio advertising to the total cost of radio and television advertising. Change the word “to” into the fractional form.

Solution:

$$\frac{\text{radio cost}}{\text{radio cost} + \text{television cost}} = \frac{15,000}{15,000 + 20,000} = \frac{15,000}{35,000} = \frac{15}{35} = \frac{3}{7}$$