BACKGROUND INFORMATION
A ratio is a way to compare numbers or quantities. A ratio focuses on the size relationship between numbers. The order of the numbers must match the words in the situation, so unlike fractions, ratios with a larger term on top do not change into a whole number or a mixed number.
A proportion is a statement that two ratios are equal.

This lesson should take approximately 1 hour and 15 minutes to complete, if all components are utilized.

Video
Introduce the video by showing an advertisement from a paper, magazine, or website and discuss how selections are compared and choices are made.
Show the video Ratio.

After the video, focus on these points:
• Ratios compare two quantities by division.
• Ratios normally compare similar kinds of things.
• Ratios can be written with the word “to,” with a colon, or as a fraction.

The next video explains how to set up a proportional equation and how to multiply and divide cross products to find a missing value. To introduce this video, ask for the price of one theatre ticket, and then ask the cost of four tickets.
Show the video Proportion.

After the video, focus on these points:
• A proportion is an equality of two ratios.
• To prove a proportion is true or correct, compare the cross products; if the cross products are equal the ratios are equal.
• Use algebra to solve for any missing value.
Worksheets/Practice

This worksheet packet includes some practice problems for each video segment from the GED Connection Mathematics workbook Program 32 practice pages.
- Understanding Ratios, p. 113, Skill Practice
- Understanding Proportions, p. 115 Skill Practice
- Solving Two-Part Proportion Problems, p.117 Skill Practice
- GED Practice, p. 124, problems 1 and 3
- GED Practice, p. 125, problems 12 and 13

Online Activities

Further practice can be found online at LiteracyLink (www.pbs.org/literacy). Further explanations and a practice test can be found at ThinkQuest. Interactive activities and a quiz can be found at Math Is Fun. For more resources and an overview of the 2002 GED test, click www.gedmathstrategies.com.

Test Tips:

- Make sure you understand what you are being asked to find before you start any calculations.
- To solve problems of money and measurement, you will frequently use ratio and proportion.
- Remember the importance of order when setting up ratios in a proportion and write them in the order they are mentioned in the problem.
- Make sure you simplify all ratios and proportions because most answer choices are written in proportional to relationships.
- Use your knowledge of equivalent fractions and decimals to save time and check your work.