Ratios and Equations

Overview of Skill Development

Ratios and Equations is a 60-lesson program designed to teach basic ratio analysis and apply it to story problems. By understanding the procedure for changing any number into any other number by multiplying and how each number in a ratio (a pair of fractions) is related to each other number, the students can solve the following types of problems:

• $\frac{2}{3}A = 9$

•
$$2F = \frac{3}{4}$$

- $\frac{1}{5}F = \square$
- $\frac{4}{9} = \frac{\frac{2}{3}}{\boxed{}}$

- 4 cows eat 3 tons of hay. How much do 7 cows eat?
- What is the rate of a plane that travels 850 kilometers in 3.4 hours?
- If it takes 5 men working 4 hours to build 3 meters of sidewalk, how long will it take 6 men to build 5 meters of sidewalk?
- What percent of 5 is 7?
- 30% of what number is 8?

Ratios and Equations is designed to be taught every day. The lessons average approximately 25 minutes. The module may be taught simultaneously with other skills, such as those needed later in the program—reducing factions, changing mixed numbers to fractions, decimal and fractional division, addition, and subtraction.

The program may be used by any student who has mastered at least fraction multiplication but who cannot solve problems involving ratios, simple equations, or ratio story problems. It may be used as a remedial program or as an introductory program.

Scope and Sequence Chart

Ratios and Equations

Major Tracks

24

	1	5	10) 1	5 2	20	25	30	35	40	45	50	55	60
Changing a number by multiplying.														
Solving simple ratios.														
Changing numbers the fast way.														
Ratios involving changing a numbers.														
Four types of ratio word problems.														
Rationale for changing numbers.														
Putting units in answers.														
Checking ratio problems.														
Solving equations that use letters.														
Solving ratio work problems.														
Writing and solving simple word problems.														
Key: Teach R	eview				1		1							