Unit 3 Ratios, Proportions & Percents

Content Area: **Special Education**
Course(s):
Time Period: **November**
Length: **6 weeks**
Status: **Published**

Enduring Understandings

Proportions can be used to solve problems involving scale drawings.

Proportional relationships can be determined using a variety of strategies.

Context is critical when using estimation.

Essential Questions

How can proportions be used to solve scale drawings?

When is approximation a reasonable answer?

When should you use mental computation?

Content

Vocabulary

Ratio

Unit Rate

Proportion

Percent

Cross product

Similar figures

Corresponding parts

Scale model

Skills

Find ratios and unit rates.

Convert rates from one system of measurement to another.

Write and solve proportions.

Solve proportions using cross products.

Use proportions to solve real life applications.

Use mental math to calculate and estimate percents.

Find the percent of a number with a calculator.

Calculate tax, discounts, and interest using both mental math and calculators.

Compare successive and cumulative discounts.

Solve percent problems using equations.

Resources

Standards

CCSS: Mathematics

CCSS: Grade 6

Ratios & Proportional Relationships

6.RP.A. Understand ratio concepts and use ratio reasoning to solve problems.

6.RP.A.3c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

6.RP.A.3d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

CCSS: Grade 7

Ratios & Proportional Relationships

7.RP.A. Analyze proportional relationships and use them to solve real-world and mathematical problems.

7.RP.A.1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.

Show details

7.RP.A.2. Recognize and represent proportional relationships between quantities.

7.RP.A.2c. Represent proportional relationships by equations.

Show details

7.RP.A.3. Use proportional relationships to solve multistep ratio and percent problems.

Show details

MA.6.RP	Ratios and Proportional Relationships
MA.6.RP.A	Understand ratio concepts and use ratio reasoning to solve problems.
MA.6.RP.A.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.
MA.6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.