

Unit 9 - Operations with Fractions

Content Area: **Mathematics**
Course(s):
Time Period: **February**
Length: **3-4 weeks**
Status: **Published**

Unit Overview

Unit 9 connects with the theme Let's Play Games!, which centers around activities such as trivia, puzzles, checkers, and sports. Students learn the different aspects of computing with fractions, and that concrete models are helpful for representing different operations with fractions. When students understand how to use these models when solving problems, they will be able to transition more easily to performing more complex operations with fractions.

Essential Questions

"How can I use operations to model realworld fractions?"

Content

Hands On: Use Models to Add Like Fractions

Add like Fractions

Hands On: Use Models to Subtract Like Fractions

Subtract Like Fractions

Problem-Solving Investigation: Work Backward

Add Mixed Numbers

Subtract Mixed Numbers

Hands On: Model Fractions and Multiplication

Multiply Fractions by Whole Numbers

Skills

Use models to add like fractions.

Add like fractions.

Use models to subtract like fractions.

Subtract like fractions.

Work backward to solve problems.

Add mixed numbers.

Subtract mixed numbers.

Use models to multiply fractions.

Multiply fractions by whole numbers.

Assessments

Online Readiness Quiz

Vocabulary Check

Concept Check - Check My Progress

Chapter Test

Teacher Observation

Lessons/Learning Scenarios

MyMath Grade 4

Chapter 9: Lessons 1-9

Standards

CCSS.Math.Content.4.NF.B.3.a	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
CCSS.Math.Content.4.NF.B.3.b	Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model.
CCSS.Math.Content.4.NF.B.3.c	Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.

CCSS.Math.Content.4.NF.B.3.d	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
CCSS.Math.Content.4.NF.B.4.a	Understand a fraction a/b as a multiple of $1/b$.
CCSS.Math.Content.4.NF.B.4.b	Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number.
CCSS.Math.Content.4.NF.B.4.c	Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.

Resources

MyMath Grade 4: McGraw-Hill (2012)

- fraction models
- fraction tiles
- fraction circles
- play dollars and coins