Mastering Fractions: Adding and Subtracting with Different Denominators

Introduction to Fractions (10 minutes)

Read the following text and answer the questions:

Fractions are a way of showing part of a whole. They consist of a numerator (the top number) and a denominator (the bottom number). For example, 1/2 is a fraction where 1 is the numerator and 2 is the denominator.

1. What is the numerator in the fraction 1/2?

2. What is the denominator in the fraction 1/2?

3. Give an example of a real-world scenario where fractions are used.

Understanding Equivalent Fractions (15 minutes)

Read the following text and answer the questions:

Equivalent fractions are fractions that have the same value but different numerators and denominators. For example, 1/2 and 2/4 are equivalent fractions.

1. What are equivalent fractions?

2. Give an example of two equivalent fractions.

3. Why are equivalent fractions important in mathematics?

Adding Fractions with Different Denominators (20 minutes)

Read the following text and answer the questions:

To add fractions with different denominators, we need to find the least common multiple (LCM) of the denominators. The LCM is the smallest multiple that both denominators have in common.

1. What is the LCM of 4 and 6?
2. Add the fractions 1/4 and 1/6.
3. Why is it important to find the LCM when adding fractions with different denominators?

Subtracting Fractions with Different Denominators (20 minutes)

Read the following text and answer the questions:

To subtract fractions with different denominators, we need to follow the same steps as adding fractions. We need to find the LCM of the denominators and convert both fractions to have the same denominator.

1. What is the LCM of 4 and 2?
2. Subtract the fractions 1/2 and 1/4.

3. Why is it important to find the LCM when subtracting fractions with different denominators?

Real-World Scenarios (20 minutes)

Read the following scenarios and answer the questions:

A recipe requires 3/4 cup of flour and 1/6 cup of sugar. What is the total amount of ingredients needed?

1. Add the fractions 3/4 and 1/6.
2. What is the total amount of ingredients needed?
3. Why is it important to use fractions in cooking?

Practice Questions (20 minutes)

Answer the following questions:

1. Add 1/2 and 1/3.
2. Subtract 1/4 from 1/2.

3. A water tank can hold 3/4 of a liter of water. If 1/6 liter of water is already in the tank, how much more water can be added?

Differentiated Activities (20 minutes)

Choose one of the following activities:

1. Provide additional practice questions with visual aids, such as diagrams or charts.
2. Use real-world scenarios that are relevant to their interests, such as cooking or sports.
3. Provide more complex practice questions, such as adding or subtracting fractions with multiple denominators.

[Space for activity]

Reflection and Conclusion (10 minutes)

Individual Reflection:

1. What did you learn about adding and subtracting fractions with different denominators?
2. How will you apply what you learned to real-world scenarios?
3. What questions do you still have about fractions?

Additional Resources (10 minutes)

Explore the following resources:

- Fraction worksheets with visual aids
- Real-world scenario cards with fraction problems
- Online resources, such as fraction games and interactive activities

[Space for resources]