



PLANIT
TEACHERS

Mastering Fractions: A Comprehensive Guide for 12-Year-Olds in P6 Mathematics

Student Name: _____

Class: _____


Due Date: _____

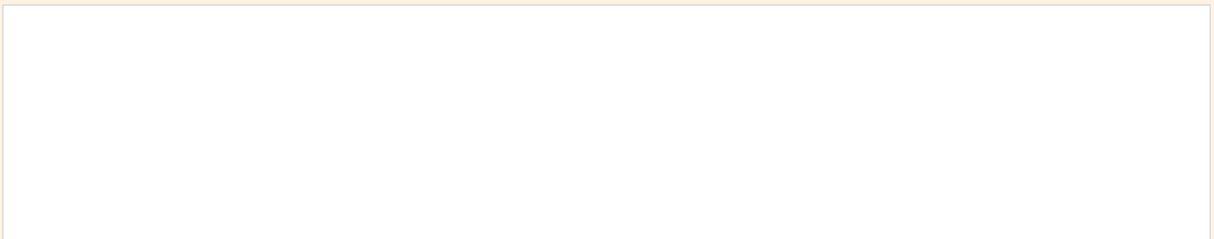
Introduction to Fractions

What are Fractions?

Fractions are a way of showing part of a whole. It consists of a numerator (the top number) and a denominator (the bottom number). For example, $\frac{1}{2}$ is a fraction that shows one part out of two equal parts.

Practice Exercise 1:

1. Write the fraction for the shaded part of the picture:  Fraction Picture



Equivalent Fractions

What are Equivalent Fractions?

Equivalent fractions are fractions that have the same value, but with different numerators and denominators. For example, $\frac{1}{2}$ and $\frac{2}{4}$ are equivalent fractions.

Practice Exercise 2:

1. Find the equivalent fraction for $\frac{3}{4}$ with a denominator of 8.

Simplifying Fractions

What is Simplifying Fractions?

Simplifying fractions involves reducing a fraction to its simplest form by dividing both the numerator and denominator by their greatest common divisor. For example, $\frac{4}{8}$ can be simplified to $\frac{1}{2}$.

Practice Exercise 3:

1. Simplify the fraction $\frac{6}{8}$.

Adding and Subtracting Fractions

How to Add and Subtract Fractions

To add or subtract fractions, they must have the same denominator. For example, $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$, which can be simplified to $\frac{1}{2}$.

Practice Exercise 4:

1. Add the fractions $\frac{1}{4}$ and $\frac{1}{4}$.

Real-World Applications

Real-World Applications of Fractions

Fractions have numerous real-world applications, including measuring ingredients for a recipe, dividing a pizza among friends, and measuring the length of an object.

Practice Exercise 5:

1. A recipe requires $\frac{3}{4}$ cup of sugar. If you want to make half the recipe, how much sugar will you need?

Activities

Activity 1: Create a Fraction Wall

Create a fraction wall using paper strips to visualize the concept of equivalent fractions.

Activity 2: Play Fraction War

Play a game of "Fraction War" to practice adding and subtracting fractions.

Assessment

Assessment 1: Short Quiz

Write a short quiz to assess your understanding of fractions.

Assessment 2: Project

Create a project that applies fractions to a real-world scenario.

Conclusion

Conclusion

Fractions are a fundamental concept in mathematics that can be challenging for some students to grasp. However, with the right approach and practice, students can master fractions and develop a deep understanding of this essential mathematical concept.

Extension

Extension Activity 1: Research and Presentation

Research and create a presentation on a real-world application of fractions.

Extension Activity 2: Design a Game

Design a game that involves fractions.

Glossary

- Fraction: a way of showing part of a whole
- Numerator: the top number in a fraction
- Denominator: the bottom number in a fraction
- Equivalent fractions: fractions that have the same value, but with different numerators and denominators
- Simplify: to reduce a fraction to its simplest form