Introduction to Fractions

Welcome to the world of fractions and equivalent ratios! This worksheet is designed to help you understand the basics of fractions and how to identify equivalent ratios.

Fractions are used to show part of a whole. They consist of a numerator (the top number) and a denominator (the bottom number).

Activity 1: Matching Fractions

Match the following fractions with their equivalent forms:

1. 1/2 = _____
2. 2/4 = _____
3. 3/6 = _____

Equivalent Ratios

Equivalent ratios are fractions that have the same value but are expressed differently.

For example, 1/2 and 2/4 are equivalent ratios because they both represent the same part of a whole.

Activity 2: Identifying Equivalent Ratios

Identify the equivalent ratios for the following fractions:

1. 1/2 = _____
2. 2/3 = _____
3. 3/4 = _____

Real-World Applications

Fractions are used in cooking to measure ingredients. For example, a recipe might call for 3/4 cup of sugar.

You want to make a recipe that calls for 3/4 cup of sugar, but you only have a 1/4 cup measuring cup. How can you measure out the right amount?

Activity 3: Measuring Ingredients

Use the following recipe to practice measuring ingredients:

Ingredient	Measurement
Sugar	3/4 cup
Flour	2 1/4 cups

Simplifying Fractions

Simplifying fractions means reducing them to their simplest form.

For example, 6/8 can be simplified to 3/4.

Activity 4: Simplifying Fractions

Simplify the following fractions:

1. 6/8 = _____
2. 4/6 = _____
3. 8/10 = _____

Word Problems

Word problems involve using fractions to solve real-world problems.

A bookshelf has 5 shelves, and 3/5 of them are filled with books. If the bookshelf is extended to have 10 shelves, what fraction of the shelves will be filled with books?

Activity 5: Word Problems

Solve the following word problems:

1. A recipe calls for 2/3 cup of flour, but you only have a 1/4 cup measuring cup. How can you measure out the right amount?
2. A group of friends want to share some candy equally. If they have 3/4 of a bag of candy and there are 6 friends, what fraction of the bag will each friend get?

Differentiated Activity

Choose one of the following activities based on your learning style:

1. Visual Learners: Create a diagram to show the equivalent ratios for 1/2.
2. Auditory Learners: Listen to a podcast about fractions and equivalent ratios and take notes.
3. Kinesthetic Learners: Create a model using blocks or fraction strips to show the equivalent ratios for 2/3.

[Space for creative work]

Review

Review the key concepts learned in this worksheet:

- Fractions
- Equivalent ratios
- Simplifying fractions
- Word problems

Challenge

Solve the following challenge problems:

1. A water tank can hold 3/4 of a liter of water. If 1/4 liter of water is already in the tank, what fraction of the tank is filled?
2. A group of friends want to share some candy equally. If they have 3/4 of a bag of candy and there are 6 friends, what fraction of the bag will each friend get?

Reflection

Reflect on what you have learned in this worksheet:

1. What did you find challenging?
2. What did you enjoy learning?
3. How can you apply what you have learned to real-world situations?

Conclusion

Congratulations on completing this worksheet! You have learned the basics of fractions and equivalent ratios and how to apply them to solve problems.

Remember to practice what you have learned and explore real-world applications of fractions.