Fractions and Decimals Assessment

Introduction

This assessment is designed to evaluate students' understanding of fractions and decimals operations and applications. The assessment consists of four sections: multiple-choice questions, short-answer questions, a performance task, and a project-based question.

Section 1: Multiple Choice Questions

Choose the correct answer for each question.

1. What is the decimal equivalent of the fraction 3/4?
2. Which of the following fractions is equivalent to 2/3?
3. What is the result of adding 1/2 and 1/4?
4. What is the result of subtracting 1/4 from 3/4?

5. What is the result of multiplying 1/2 and 3/4?
6. What is the result of dividing 3/4 by 1/2?
7. What is the decimal equivalent of the fraction 2/5?

8. What is the result of adding 2/3 and 1/6?

9. What is the result of subtracting 1/6 from 2/3?

10. What is the result of multiplying 2/3 and 3/4?

Section 2: Short Answer Questions

Answer each question in complete sentences.

1. A recipe calls for 3/4 cup of sugar. If you want to make half the recipe, how much sugar will you need?

2. A shirt is on sale for 25% off its original price of $25. How much will you pay for the shirt?

3. A bookshelf has 5 shelves, and each shelf can hold 3/4 of a meter of books. If the bookshelf is currently empty, how many meters of books can be placed on it?

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

5. A bicycle travels 3/4 of a kilometer in 1/2 hour. How many kilometers will it travel in 1 hour?

Section 3: Performance Task

Read the scenario and solve the problem.

Tom has 1 1/2 cups of flour and needs 2 3/4 cups to make a cake. How much more flour does Tom need to buy?

Section 4: Project-Based Question

Create a visual representation (e.g., graph, chart, diagram) to solve the problem.

Create a graph to show the cost of a monthly phone plan that charges $25 per month plus 0.05 per text message. If you send 100 text messages per month, how much will your total bill be?

Additional Activities

Complete the following activities to reinforce your understanding of fractions and decimals.

Fractions and Decimals Word Search: Find the following fractions and decimals in the word search puzzle: 1/2, 3/4, 2/3, 0.5, 0.25

Fractions and Decimals Matching Game: Match the following fractions with their decimal equivalents: 1/2, 3/4, 2/3, 1/4, 0.5, 0.75, 0.25, 0.33

Answer Key

Use the answer key to check your work.

Section 1: Multiple Choice Questions

1. 1. C) 0.75
2. 2. A) 4/6
3. 3. C) 3/4
4. 4. A) 1/2
5. 5. B) 1/2
6. 6. C) 3/2
7. 7. B) 0.4
8. 8. C) 3/4
9. 9. A) 1/2
10. 10. C) 3/2

Section 2: Short Answer Questions

1. 1. 3/8 cup
2. 2. $18.75
3. 3. 3 3/4 meters
4. 4. 1/2 liter
5. 5. 1 1/2 kilometers

Section 3: Performance Task

Tom needs to buy 1 1/4 cups of flour.

Section 4: Project-Based Question

The total bill will be $30.