

## 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  $\frac{3}{4}$ ?

2. Which of the following fractions is equivalent to  $\frac{2}{3}$ ?

3. What is the result of adding  $\frac{1}{2}$  and  $\frac{1}{4}$ ?

4. What is the result of subtracting  $\frac{1}{4}$  from  $\frac{3}{4}$ ?

5. What is the result of multiplying  $\frac{1}{2}$  and  $\frac{3}{4}$ ?

6. What is the result of dividing  $\frac{3}{4}$  by  $\frac{1}{2}$ ?

7. What is the decimal equivalent of the fraction  $\frac{2}{5}$ ?

8. What is the result of adding  $\frac{2}{3}$  and  $\frac{1}{6}$ ?

9. What is the result of subtracting  $\frac{1}{6}$  from  $\frac{2}{3}$ ?

10. What is the result of multiplying  $\frac{2}{3}$  and  $\frac{3}{4}$ ?

## Section 2: Short Answer Questions

Answer each question in complete sentences.

1. A recipe calls for  $\frac{3}{4}$  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  $\frac{3}{4}$  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  $\frac{3}{4}$  of a liter of water. If  $\frac{1}{4}$  liter of water is already in the tank, how much more water can be added?

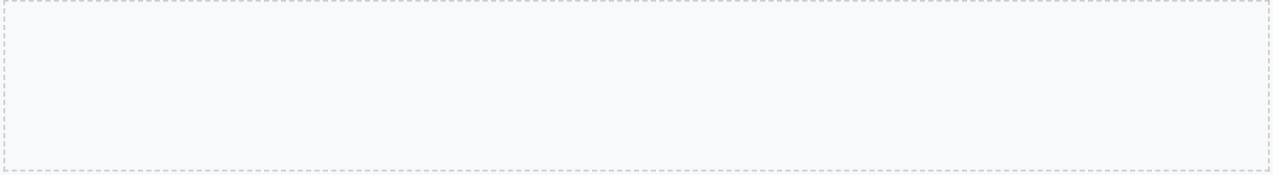
5. A bicycle travels  $\frac{3}{4}$  of a kilometer in  $\frac{1}{2}$  hour. How many kilometers will it travel in 1 hour?

## Section 3: Performance Task

Page 1 of 4

Read the scenario and solve the problem.

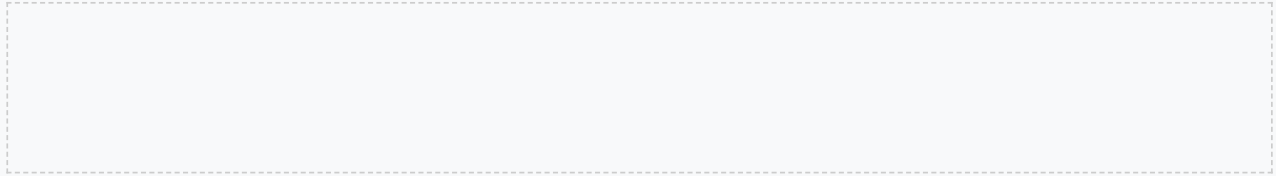
Tom has  $1\frac{1}{2}$  cups of flour and needs  $2\frac{3}{4}$  cups to make a cake. How much more flour does Tom need to buy?



## Section 4: Project-Based Question

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

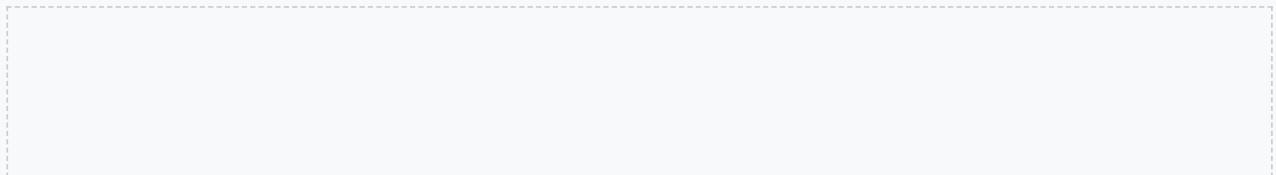
Create a graph to show the cost of a monthly phone plan that charges \$25 per month plus 0.05 per text message. If you send 100 text messages per month, how much will your total bill be?



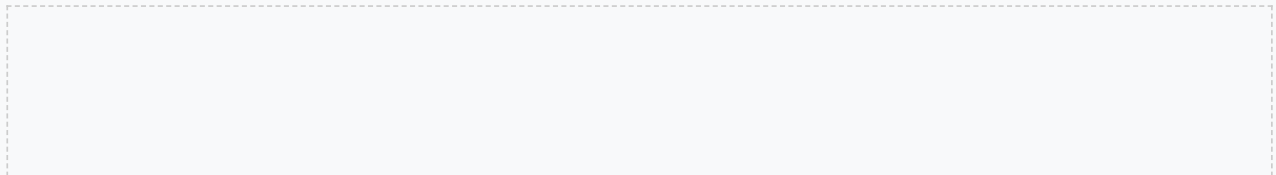
## Additional Activities

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:  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $\frac{2}{3}$ , 0.5, 0.25



Fractions and Decimals Matching Game: Match the following fractions with their decimal equivalents:  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $\frac{2}{3}$ ,  $\frac{1}{4}$ , 0.5, 0.75, 0.25, 0.33



## Answer Key

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*Use the answer key to check your work.*

### Section 1: Multiple Choice Questions

1. 1. C) 0.75
2. 2. A)  $\frac{4}{6}$
3. 3. C)  $\frac{3}{4}$
4. 4. A)  $\frac{1}{2}$
5. 5. B)  $\frac{1}{2}$
6. 6. C)  $\frac{3}{2}$
7. 7. B) 0.4
8. 8. C)  $\frac{3}{4}$
9. 9. A)  $\frac{1}{2}$
10. 10. C)  $\frac{3}{2}$

### Section 2: Short Answer Questions

1. 1.  $\frac{3}{8}$  cup
2. 2. \$18.75
3. 3.  $3\frac{3}{4}$  meters
4. 4.  $\frac{1}{2}$  liter
5. 5.  $1\frac{1}{2}$  kilometers

### Section 3: Performance Task

Tom needs to buy  $1\frac{1}{4}$  cups of flour.

### Section 4: Project-Based Question

The total bill will be \$30.

