

**Student Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

**Due Date:** \_\_\_\_\_

### Introduction and Instructions

Welcome to the Introduction to Fractions and Decimals homework assignment. This worksheet is designed to help you practice and reinforce your understanding of fractions and decimals. Please read each question carefully and ensure you understand what is being asked. Use a pencil and paper to write down your calculations and workings for each question.

Check your answers once you have finished all the questions to ensure accuracy. If you are unsure about any of the questions, don't hesitate to ask a parent, guardian, or teacher for assistance.

## Section 1: Fraction Basics

### Identify the Fraction:

Write the fraction for each of the following diagrams:

1. A pizza divided into 8 slices, with 3 slices shaded: \_\_\_\_\_
2. A cake divided into 12 slices, with 4 slices eaten: \_\_\_\_\_

### Equivalent Fractions:

Find two equivalent fractions for each of the following:

1.  $\frac{1}{2}$ : \_\_\_\_\_, \_\_\_\_\_
2.  $\frac{3}{4}$ : \_\_\_\_\_, \_\_\_\_\_

### Comparing Fractions:

Compare the following fractions and determine which is larger:

1.  $\frac{1}{4}$  or  $\frac{1}{6}$ : \_\_\_\_\_
2.  $\frac{3}{8}$  or  $\frac{2}{8}$ : \_\_\_\_\_

## Section 2: Decimal Basics

### Converting Decimals to Fractions:

Convert the following decimals into fractions:

1. 0.5: \_\_\_\_\_

2. 0.25: \_\_\_\_\_

### Decimal Operations:

Perform the following operations:

1.  $2.5 + 1.8$ : \_\_\_\_\_

2.  $4.2 - 2.1$ : \_\_\_\_\_

### Real-World Application:

If a toy costs \$15.99 and you have a \$20 bill, how much change will you get? \_\_\_\_\_

### Section 3: Mixed Numbers and Word Problems

#### Mixed Numbers:

Convert the following improper fractions into mixed numbers:

1.  $5/4$ : \_\_\_\_\_

2.  $7/3$ : \_\_\_\_\_

#### Word Problems:

Solve the following word problems:

1. Tom has  $1 \frac{1}{2}$  bags of apples. If he gives  $\frac{1}{2}$  bag to his friend, how many bags of apples does Tom have left? \_\_\_\_\_

2. A bookshelf is  $2 \frac{3}{4}$  meters tall. If a new bookshelf is  $\frac{1}{4}$  meter taller, how tall is the new bookshelf?  
\_\_\_\_\_

## Section 4: Challenge

### Fraction and Decimal Conversion:

Convert  $\frac{3}{8}$  into a decimal and then convert 0.6 into a fraction:

1.  $\frac{3}{8}$  as a decimal: \_\_\_\_\_
2. 0.6 as a fraction: \_\_\_\_\_

### Problem Solving:

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

## Extension Activities

### Create Your Own Problems:

Design 3 fraction or decimal word problems and solve them.

### Fraction and Decimal Bingo:

Create bingo cards with fractions and decimals and play a game where you match equivalent fractions and decimals.

### Real-World Research:

Find and list 5 real-world scenarios where fractions and decimals are used.

## Success Criteria

To successfully complete this homework, you should:

- Accurately complete all questions in the main activities.
- Show clear workings and calculations for each problem.
- Attempt at least one extension activity if time allows.
- Review your work for accuracy and completeness.

## Parent/Guardian Notes

**Support and Guidance:** Encourage your child to work independently but be available to provide guidance and support when needed.

**Time Management:** Allocate about 30-40 minutes for your child to complete this homework. Encourage them to take breaks if needed.

**Review and Feedback:** Spend some time reviewing your child's work, providing feedback on their understanding and suggesting areas for improvement.

**Encourage Self-Assessment:** Teach your child to reflect on their own learning, identifying what they found easy or challenging and how they can improve.

### Section 1: Fraction Basics

1.  $\frac{3}{8}$
2.  $\frac{4}{12}$  or  $\frac{1}{3}$
3.  $\frac{1}{2}$ :  $\frac{2}{4}$ ,  $\frac{3}{6}$
4.  $\frac{3}{4}$ :  $\frac{6}{8}$ ,  $\frac{9}{12}$
5.  $\frac{1}{4}$  or  $\frac{1}{6}$ :  $\frac{1}{4}$
6.  $\frac{3}{8}$  or  $\frac{2}{8}$ :  $\frac{3}{8}$

### Section 2: Decimal Basics

1. 0.5:  $\frac{1}{2}$
2. 0.25:  $\frac{1}{4}$
3.  $2.5 + 1.8$ : 4.3
4.  $4.2 - 2.1$ : 2.1
5. \$4.01

### Section 3: Mixed Numbers and Word Problems

1.  $1 \frac{1}{4}$
2.  $2 \frac{1}{3}$
3. 1 bag
4. 3 meters

### Section 4: Challenge

1. 0.375
2.  $\frac{3}{5}$
3.  $\frac{3}{8}$