# Fractions Into Decimals Worksheet

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## Part 1: Building a Foundation

### What is a fraction?

*Hint: Think about how fractions are represented.*

- ◯ A) A whole number
- ◯ B) A part of a whole expressed as `a/b`
- ◯ C) A decimal number
- ◯ D) A percentage

### Which of the following are true about decimals?

*Hint: Consider the properties of decimal numbers.*

- ☐ A) They are always less than 1
- ☐ B) They can represent whole numbers
- ☐ C) They are expressed in a base-10 system
- ☐ D) They are always greater than 1

### Explain the relationship between fractions and decimals.

*Hint: Think about how they can represent the same values.*

### List two common fractions and their decimal equivalents.

*Hint: Think of simple fractions like 1/2 or 1/4.*

1. 1/2

2. 1/4

**What method is commonly used to convert fractions to decimals?**

*Hint: Consider the mathematical operations involved.*

- ◯ A) Multiplication
- ◯ B) Long division
- ◯ C) Addition
- ◯ D) Subtraction

## Part 2: comprehension and Application

**Which of the following is a repeating decimal?**

*Hint: Look for decimals that have a pattern.*

- ◯ A) 0.5
- ◯ B) 0.333...
- ◯ C) 0.25
- ◯ D) 1.75

**Which statements are true about terminating decimals?**

*Hint: Consider the characteristics of these decimals.*

- ☐ A) They end after a finite number of digits
- ☐ B) They repeat indefinitely
- ☐ C) They can be converted back to fractions
- ☐ D) They are always greater than 1

**Describe how you can identify if a fraction will result in a terminating or repeating decimal.**

*Hint: Think about the factors of the denominator.*

**Convert the following fractions to decimals: 1/8, 3/5.**

*Hint: Use long division or a calculator.*

1. 1/8

2. 3/5

**Explain the steps you would take to convert the fraction 7/9 into a decimal using long division.**

*Hint: Outline the long division process.*

**If you convert 1/4 into a decimal, what is the result?**

*Hint: Think about the decimal equivalent of common fractions.*

- ◯ A) 0.4
- ◯ B) 0.25
- ◯ C) 0.75
- ◯ D) 0.5

## Part 3: Analysis, Evaluation, and Creation

**When analyzing the fraction 5/6, which of the following are true about its decimal form?**

*Hint: Consider the properties of the decimal representation.*

- [ ] A) It is a terminating decimal
- [ ] B) It is a repeating decimal
- [ ] C) It is greater than 0.8
- [ ] D) It is less than 0.9

**Analyze the pattern you observe when converting fractions with denominators of 10, 100, and 1000 into decimals.**

*Hint: Think about how the place value changes.*

**Which fraction will result in a decimal that repeats?**

*Hint: Consider the properties of fractions.*

- ◯ A) 1/2
- ◯ B) 1/3
- ◯ C) 1/4
- ◯ D) 1/5

**Evaluate the importance of understanding fraction to decimal conversions in real-world scenarios, such as financial calculations.**

*Hint: Think about how this knowledge is applied in daily life.*

**Create two real-world problems where converting fractions to decimals would be necessary, and solve them.**

*Hint: Think about situations involving measurements or finances.*

1. Problem 1: A recipe requires 3/4 cup of sugar. How much is that in decimal?

2. Problem 2: A store is offering a 25% discount on a $40 item. What is the discount in decimal?

**Which scenario best illustrates the use of decimals in everyday life?**

*Hint: Consider common situations where decimals are used.*

- ◯ A) Measuring the length of a table
- ◯ B) Counting the number of apples
- ◯ C) Calculating the area of a square
- ◯ D) Determining the time of day