

## Fractions Into Decimals Worksheet Questions and Answers PDF

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### Part 1: Building a Foundation

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#### What is a fraction?

*Hint: Think about how fractions are represented.*

- A) A whole number
- B) A part of a whole expressed as  $\frac{a}{b}$  ✓
- C) A decimal number
- D) A percentage

■ A fraction is a part of a whole expressed as  $\frac{a}{b}$ .

#### 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

■ Decimals can represent whole numbers and are expressed in a base-10 system.

#### Explain the relationship between fractions and decimals.

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

Fractions and decimals are two ways to represent parts of a whole; fractions can be converted to decimals and vice versa.

List two common fractions and their decimal equivalents.

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

1.  $1/2$

0.5

2.  $1/4$

0.25

Common fractions include  $1/2$  (0.5) and  $1/4$  (0.25).

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

Long division is the common method used to convert fractions to decimals.

## Part 2: comprehension and Application

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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

0.333... is a repeating decimal.

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

Terminating decimals end after a finite number of digits and can be converted back to fractions.

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

Hint: Think about the factors of the denominator.

A fraction will result in a terminating decimal if the denominator has only the prime factors 2 and/or 5.

Convert the following fractions to decimals:  $\frac{1}{8}$ ,  $\frac{3}{5}$ .

Hint: Use long division or a calculator.

1.  $\frac{1}{8}$ 

| 0.125

2.  $\frac{3}{5}$ 

| 0.6

|  $\frac{1}{8}$  converts to 0.125 and  $\frac{3}{5}$  converts to 0.6.**Explain the steps you would take to convert the fraction  $\frac{7}{9}$  into a decimal using long division.***Hint: Outline the long division process.*| To convert  $\frac{7}{9}$  to a decimal, divide 7 by 9 using long division, which will show that it repeats.**If you convert  $\frac{1}{4}$  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

|  $\frac{1}{4}$  converts to 0.25.

### Part 3: Analysis, Evaluation, and Creation

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When analyzing the fraction  $\frac{5}{6}$ , 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 ✓

5/6 is a repeating decimal, greater than 0.8 and 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.

Fractions with denominators of 10, 100, and 1000 convert directly to decimals based on their place value.

Which fraction will result in a decimal that repeats?

Hint: Consider the properties of fractions.

- A)  $\frac{1}{2}$
- B)  $\frac{1}{3}$  ✓
- C)  $\frac{1}{4}$
- D)  $\frac{1}{5}$

$\frac{1}{3}$  results in a repeating decimal.

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.

**Understanding fraction to decimal conversions is crucial for accurate financial calculations and measurements in everyday 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  $\frac{3}{4}$  cup of sugar. How much is that in decimal?

**0.75**

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

**0.25**

Examples could include calculating discounts or converting measurements in recipes.

**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

Measuring the length of a table is a common scenario that illustrates the use of decimals.