

Decimal To Fraction Worksheet Answer Key PDF

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Part 1: Foundational Knowledge

What is the denominator of the fraction when converting the decimal 0.75 to a fraction?

undefined. 10

undefined. 100 ✓

undefined. 1000

undefined. 1

The denominator is 100, as 0.75 can be expressed as $\frac{75}{100}$.

Which of the following are correct steps in converting a decimal to a fraction?

undefined. Identify the place value of the decimal ✓

undefined. Write the decimal as a fraction with a denominator of 10

undefined. Simplify the fraction ✓

undefined. Multiply the decimal by 100

The correct steps include identifying the place value, writing the decimal as a fraction, and simplifying.

Explain the difference between a decimal and a fraction in your own words.

A decimal represents a part of a whole using a base of 10, while a fraction represents a part of a whole using a numerator and denominator.

List the components of a fraction and briefly describe each.

1. What is the numerator?

The numerator is the top part of the fraction that indicates how many parts are being considered.

2. What is the denominator?

The denominator is the bottom part of the fraction that indicates the total number of equal parts.

A fraction consists of a numerator (the top number) and a denominator (the bottom number), which represent parts of a whole.

Part 2: Understanding and Interpretation

What is the fraction form of the decimal 0.2?

undefined. $1/5$ ✓

undefined. $2/10$

undefined. $1/2$

undefined. $2/5$

The fraction form of 0.2 is $1/5$.

Which of the following decimals can be converted to a fraction with a denominator of 100?

undefined. 0.25 ✓

undefined. 0.5 ✓

undefined. 0.75 ✓

undefined. 0.125

Decimals like 0.25, 0.5, and 0.75 can be converted to fractions with a denominator of 100.

Describe how you would convert the repeating decimal 0.333... into a fraction.

To convert 0.333... into a fraction, you can set $x = 0.333...$, multiply by 10 to get $10x = 3.333...$, and then subtract to find $x = 1/3$.

Part 3: Application and Analysis

If you convert the decimal 0.6 to a fraction and simplify it, what is the result?

undefined. $3/5$ ✓

undefined. $6/10$

undefined. $\frac{1}{2}$

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

The simplified fraction form of 0.6 is $\frac{3}{5}$.

Which of the following decimals are equivalent to the fraction $\frac{1}{4}$?

undefined. 0.25 ✓

undefined. 0.5

undefined. 0.75

undefined. 0.125

The decimal equivalent of $\frac{1}{4}$ is 0.25.

Convert the decimal 0.875 to a fraction and simplify it. Show your work.

0.875 can be expressed as $\frac{875}{1000}$, which simplifies to $\frac{7}{8}$.

When converting the decimal 0.125 to a fraction, what is the greatest common divisor used to simplify the fraction?

undefined. 5

undefined. 25 ✓

undefined. 125

undefined. 8

The greatest common divisor used to simplify 0.125 is 25.

Which of the following steps are necessary when simplifying the fraction $\frac{50}{100}$?

undefined. Divide both numerator and denominator by 5

undefined. Divide both numerator and denominator by 10 ✓

undefined. Multiply both numerator and denominator by 2

undefined. Divide both numerator and denominator by 50

Necessary steps include dividing both the numerator and denominator by 10.

Analyze the process of converting the repeating decimal 0.666... to a fraction. What algebraic method can be used?

To convert 0.666... to a fraction, set $x = 0.666\dots$, multiply by 10 to get $10x = 6.666\dots$, and then subtract to find $x = 2/3$.

Part 4: Synthesis and Reflection

Which fraction is the simplest form of the decimal 0.875?

undefined. $7/8$ ✓

undefined. $3/4$

undefined. $5/6$

undefined. $1/2$

The simplest form of 0.875 is $7/8$.

Evaluate which of the following decimals are correctly simplified into fractions:

undefined. 0.2 as $1/5$ ✓

undefined. 0.4 as $2/5$

undefined. 0.6 as $3/5$ ✓

undefined. 0.8 as $4/5$ ✓

Decimals 0.2, 0.4, 0.6, and 0.8 are correctly simplified into their respective fractions.

Create a real-world scenario where converting a decimal to a fraction would be necessary. Explain the steps and reasoning involved in the conversion.

A scenario could involve converting a price of \$0.75 to a fraction for budgeting, where you would express it as $75/100$ and simplify to $3/4$.