

Decimal Place Value Worksheets Questions and Answers PDF

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Part 1: Building a Foundation

What is the place value of the digit 7 in the number 5.783?

Hint: Consider the position of the digit in relation to the decimal point.

- Tenths
- Hundredths ✓**
- Thousandths
- Units

■ The digit 7 is in the hundredths place.

Which of the following numbers have a digit 5 in the tenths place? (Select all that apply)

Hint: Look at the first digit to the right of the decimal point.

- 3.57 ✓**
- 5.23 ✓**
- 0.56
- 7.85 ✓**

■ The numbers 3.57, 5.23, and 7.85 have a digit 5 in the tenths place.

Explain the importance of the decimal point in determining the value of a decimal number.

Hint: Consider how the decimal point separates whole numbers from fractional parts.

The decimal point is crucial as it indicates the separation between whole numbers and fractions, affecting the value of each digit.

Identify the place value of the digit 4 in each of the following numbers:

Hint: Look at the position of the digit 4 in each number.

1. 0.456

Hundredths

2. 4.789

Units

3. 12.34

Ten

In 0.456, 4 is in the hundredths place; in 4.789, it is in the units place; in 12.34, it is in the tens place.

Part 2: Understanding and Interpretation

How would you write the number 0.305 in words?

Hint: Think about how to express decimal numbers in verbal form.

- Three hundred five
- Three hundred five thousandths ✓**
- Thirty-five hundredths
- Three and five tenths

■ The number 0.305 is written as 'Three hundred five thousandths'.

Which statements are true about the number 2.049? (Select all that apply)

Hint: Analyze the position of each digit in the number.

- The digit 4 is in the hundredths place. ✓**
- The digit 9 is in the thousandths place. ✓**
- The number is greater than 2.5.
- The number is less than 2.1. ✓**

■ The digit 4 is in the hundredths place, and the digit 9 is in the thousandths place. The number is less than 2.1.

Describe how you would compare the numbers 0.67 and 0.607 to determine which is larger.

Hint: Consider the place values of each digit in both numbers.

■ **To compare 0.67 and 0.607, look at the tenths place first, then the hundredths place if needed.**

Part 3: Application and Analysis

If you round the number 4.768 to the nearest hundredth, what is the result?

Hint: Look at the digit in the thousandths place to decide how to round.

- 4.76

- 4.77 ✓
 4.78
 4.80

When rounding 4.768 to the nearest hundredth, the result is 4.77.

Which of the following operations will result in a decimal number? (Select all that apply)

Hint: Consider the outcome of each operation.

- $5 \div 2$ ✓
 7×0.1 ✓
 $3 + 0.75$ ✓
 $10 - 3$

The operations $5 \div 2$, 7×0.1 , and $3 + 0.75$ will result in decimal numbers.

Convert the fraction $\frac{3}{4}$ into a decimal and explain your process.

Hint: Think about how to divide the numerator by the denominator.

The fraction $\frac{3}{4}$ converts to 0.75 by dividing 3 by 4.

Which number line correctly represents the number 0.52?

Hint: Visualize the placement of 0.52 between 0.5 and 0.6.

- A number line with 0.5 and 0.6, with 0.52 closer to 0.5 ✓
 A number line with 0.5 and 0.6, with 0.52 exactly in the middle
 A number line with 0.5 and 0.6, with 0.52 closer to 0.6
 A number line with 0.5 and 0.6, with 0.52 at 0.6

The correct number line shows 0.52 closer to 0.5.

Break down the number 5.406 into its individual place values and explain the value of each digit.

Hint: Consider the value of each digit based on its position.

In 5.406, 5 is in the units place, 4 is in the tenths place, 0 is in the hundredths place, and 6 is in the thousandths place.

Part 4: Evaluation and Creation

Which of the following numbers is closest to 0.5 when rounded to the nearest tenth?

Hint: Look at the digit in the hundredths place to decide how to round.

- 0.46
- 0.49
- 0.52
- 0.55 ✓

The number 0.55 is closest to 0.5 when rounded to the nearest tenth.

Evaluate the following scenarios and determine which would result in a decimal number. (Select all that apply)

Hint: Consider the outcome of each scenario.

- Dividing a pizza into 3 equal parts ✓**
- Multiplying a whole number by 0.5 ✓**
- Adding two whole numbers
- Subtracting a smaller whole number from a larger whole number

Dividing a pizza into 3 equal parts and multiplying a whole number by 0.5 will result in decimal numbers.

Create a real-world problem that involves comparing two decimal numbers, and explain how you would solve it.

Hint: Think about a scenario where decimals are used in everyday life.

An example could be comparing prices of two items to determine which is cheaper.

Propose two different methods to convert the decimal 0.875 into a fraction, and explain each method briefly.

Hint: Consider how to express the decimal as a fraction.

1. Method 1

Recognize that 0.875 is $\frac{875}{1000}$, which simplifies to $\frac{7}{8}$.

2. Method 2

Use long division to convert 0.875 into a fraction.

One method is to recognize that 0.875 is $\frac{875}{1000}$, which simplifies to $\frac{7}{8}$. Another method is to use long division to convert it.