Dividing Decimals By Decimals Worksheet Questions and Answers PDF

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Part 1: Foundational Knowledge

What is the main purpose of the decimal point in a number?

Hint: Think about how decimals are structured.

- ◯ A) To separate thousands from hundreds
- ◯ B) To indicate a negative number
- ◯ **C) To separate whole numbers from fractional parts ✓**
- ◯ D) To show multiplication

> The decimal point separates whole numbers from fractional parts.

Which of the following are correct representations of decimals? (Select all that apply)

Hint: Look for numbers that include a decimal point.

- ☐ **A) 0.5 ✓**
- ☐ **B) 1.25 ✓**
- ☐ **C) 3.00 ✓**
- ☐ **D) 4.5 ✓**

> The correct representations of decimals include 0.5, 1.25, 3.00, and 4.5.

Explain in your own words why it is important to move the decimal point in both the dividend and divisor when dividing decimals.

Hint: Consider how this affects the calculation.

Moving the decimal point ensures that the division is performed correctly with whole numbers, simplifying the process.

List the steps involved in performing long division with decimals.

Hint: Think about the order of operations.

1. Step 1

Move the decimal point in the divisor.

2. Step 2

Move the decimal point in the dividend.

3. Step 3

Perform the division as with whole numbers.

4. Step 4

Place the decimal point in the quotient.

> The steps include moving the decimal, dividing, multiplying, and subtract the result.

Part 2: Comprehension

When dividing 4.56 by 0.12, how many places should you move the decimal point to make the divisor a whole number?

Hint: Consider how many decimal places are in the divisor.

- ◯ A) 1 place to the right
- ◯ **B) 2 places to the right ✓**
- ◯ C) 1 place to the left
- ◯ D) 2 places to the left

> You should move the decimal point 2 places to the right.

Which of the following are reasons for rounding decimals? (Select all that apply)

Hint: Think about the purpose of rounding in calculations.

- ☐ **A) To simplify complex calculations ✓**
- ☐ B) To ensure exact results
- ☐ **C) To make estimates easier ✓**
- ☐ **D) To reduce calculation errors ✓**

> Rounding decimals is done to simplify calculations, make estimates easier, and reduce calculation errors.

Describe a real-world scenario where dividing decimals is necessary and explain how you would solve it.

Hint: Think about situations involving money or measurements.

A scenario could involve splitting a bill or measuring ingredients, and the solution would involve performing the division.

Part 3: Application

If you have $45.60 and need to divide it equally among 12 people, how much does each person get?

Hint: Consider how to perform the division.

- ◯ **A) $3.80 ✓**
- ◯ B) $3.75
- ◯ C) $3.70
- ◯ D) $3.65

Each person would get $3.80.

Which of the following calculations require dividing decimals? (Select all that apply)

Hint: Think about everyday situations that involve division.

- ☐ **A) Converting currency ✓**
- ☐ **B) Calculating average speed ✓**
- ☐ **C) Measuring ingredients for a recipe ✓**
- ☐ **D) Determining tax rates ✓**

Calculations that require dividing decimals include converting currency, calculating average speed, measuring ingredients, and determining tax rates.

Calculate the result of dividing 7.84 by 0.4 and explain each step of your process.

Hint: Break down the division into clear steps.

> **The result of dividing 7.84 by 0.4 is 19.6, and the steps include moving the decimal and performing the division.**

Part 4: Analysis

When analyzing the division of 9.36 by 0.78, what is the first step you should take?

Hint: Consider how to handle the decimal in the divisor.

- ◯ A) Perform the division directly
- ◯ **B) Move the decimal point in the divisor ✓**
- ◯ C) Estimate the result
- ◯ D) Round the dividend

> The first step is to move the decimal point in the divisor.

Which of the following statements are true about dividing decimals? (Select all that apply)

Hint: Think about the properties of division.

- ☐ A) The quotient is always smaller than the dividend
- ☐ **B) The decimal point in the quotient must be placed correctly ✓**
- ☐ C) You can ignore the decimal point in the divisor
- ☐ **D) Estimation can help verify the result ✓**

> True statements include that the decimal point in the quotient must be placed correctly and that estimation can help verify the result.

Analyze the division problem 5.67 ÷ 0.3 and explain how you would ensure the accuracy of your result.

Hint: Consider the steps you would take to verify your answer.

To ensure accuracy, I would check my calculations and possibly use estimation to verify the result.

Part 5: Evaluation and Creation

After dividing 8.91 by 0.27, you get a quotient of 33. How would you verify this result?

Hint: Think about the relationship between division and multiplication.

- ◯ **A) Multiply the quotient by the divisor ✓**
- ◯ B) Subtract the divisor from the dividend
- ◯ C) Add the quotient to the dividend
- ◯ D) Divide the quotient by the divisor

You would verify the result by multiplying the quotient by the divisor.

Which methods can be used to check the accuracy of a division involving decimals? (Select all that apply)

Hint: Consider different ways to verify calculations.

- ☐ **A) Estimation ✓**
- ☐ **B) Re-calculating using multiplication ✓**
- ☐ **C) Using a calculator ✓**
- ☐ D) Rounding the result

Methods to check accuracy include estimation, re-calculating using multiplication, and using a calculator.

Create a real-world problem that involves dividing decimals and provide a detailed solution.

Hint: Think about practical applications of division.

A real-world problem could involve budgeting or cooking, and the solution would detail the division process.