Dividing Mixed Numbers Worksheet Answer Key PDF

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Part 1: Building a Foundation

What is a mixed number?

undefined. A) A fraction with a numerator larger than the denominator

undefined. B) A combination of a whole number and a proper fraction ✓

undefined. C) A decimal number

undefined. D) A fraction with a numerator smaller than the denominator

A mixed number is a combination of a whole number and a proper fraction.

Which of the following are examples of improper fractions?

undefined. A) 5/4 ✓

undefined. B) 3/2 ✓

undefined. C) 1/3

undefined. D) 7/7 ✓

Improper fractions have numerators that are greater than or equal to their denominators.

Explain the process of converting a mixed number into an improper fraction.

To convert a mixed number to an improper fraction, multiply the whole number by the denominator, add the numerator, and place the result over the original denominator.

List the steps involved in finding the reciprocal of a fraction.

1. Step 1

Identify the numerator and denominator.

2. Step 2

Swap the numerator and denominator.

3. Step 3

Write the new fraction.

To find the reciprocal of a fraction, swap the numerator and denominator.

What is the reciprocal of 3/4?

undefined. A) 4/3 ✓
undefined. B) 3/4
undefined. C) 1/3
undefined. D) 1/4

The reciprocal of 3/4 is 4/3.

Part 2: comprehension and Application

Why is it necessary to convert mixed numbers into improper fractions before dividing?

undefined. A) To make the numbers larger
undefined. B) To simplify the calculation process ✓
undefined. C) To make the numbers smaller
undefined. D) To change the operation to multiplication

Converting mixed numbers to improper fractions simplifies the calculation process.

Which of the following statements are true about multiplying fractions?

undefined. A) You multiply the numerators together. ✓
undefined. B) You multiply the denominators together. ✓
undefined. C) You add the numerators and denominators.
undefined. D) You need to find a common denominator first.

When multiplying fractions, you multiply the numerators and denominators together.

Describe how you would simplify the fraction 18/24.

To simplify 18/24, divide both the numerator and denominator by their greatest common factor, which is 6, resulting in 3/4.

Convert the mixed number 4 2/5 into an improper fraction.

undefined. A) 22/5 ✓
undefined. B) 18/5
undefined. C) 24/5
undefined. D) 20/5

The improper fraction for 4 2/5 is 22/5.

If you have the fractions 3/4 and 2/3, which of the following are steps to divide them?

undefined. A) Find the reciprocal of 2/3. ✓
undefined. B) Multiply 3/4 by the reciprocal of 2/3. ✓
undefined. C) Add the fractions.
undefined. D) Simplify the resulting fraction. ✓

To divide fractions, find the reciprocal of the second fraction and multiply.

Solve the division of mixed numbers: 5 1/2 ÷ 2 1/3. Show your work.

To solve 5 1/2 ÷ 2 1/3, convert to improper fractions, then multiply by the reciprocal.

Part 3: Analysis, Evaluation, and Creation

What is the first step in dividing the mixed numbers 7 3/4 and 1 1/2?

undefined. A) Find the reciprocal of 1 1/2
undefined. B) Convert both to improper fractions ✓
undefined. C) Simplify 7 3/4
undefined. D) Multiply the fractions

The first step is to convert both mixed numbers to improper fractions.

Analyze the errors in the following division of mixed numbers: 3 1/2 ÷ 1 1/4 = 2 1/4

undefined. A) Incorrect conversion to improper fractions ✓

undefined. B) Incorrect reciprocal used

undefined. C) Incorrect multiplication

undefined. D) Incorrect simplification

The errors could be due to incorrect conversion to improper fractions or incorrect multiplication.

Break down the process of dividing 6 2/3 by 3 1/3 and explain each step.

To divide 6 2/3 by 3 1/3, convert both to improper fractions, find the reciprocal of the second, and multiply.

Which of the following is the correct simplified result of dividing 8 1/4 by 2 1/2?

undefined. A) 3 1/3 ✓

undefined. B) 3 3/10

undefined. C) 3 1/2

undefined. D) 3 1/4

The correct simplified result is 3 1/3.

Evaluate the division of mixed numbers in real-world scenarios. Which of the following situations require dividing mixed numbers?

undefined. A) Dividing a recipe into smaller portions ✓

undefined. B) Calculating time intervals in hours and minutes ✓

undefined. C) Splitting a pizza into equal parts ✓

undefined. D) Measuring fabric lengths for sewing ✓

Situations like dividing recipes or measuring fabric often require dividing mixed numbers.

Create a real-world problem that involves dividing mixed numbers, and solve it. Provide a detailed explanation of your solution.

An example could be dividing a recipe that serves 8 into portions for 3 people, requiring division of mixed numbers.