

Subtracting Fractions With Unlike Denominators Worksheets Questions and Answers PDF

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Part 1: Building a Foundation

What is the denominator in the fraction $\frac{3}{4}$?

Hint: Identify the bottom number of the fraction.

- A) 3
- B) 4 ✓
- C) 7
- D) 1

■ The denominator in the fraction $\frac{3}{4}$ is 4.

Which of the following are considered unlike denominators?

Hint: Look for fractions that do not share the same bottom number.

- A) $\frac{1}{2}$ and $\frac{3}{4}$ ✓
- B) $\frac{5}{6}$ and $\frac{5}{6}$
- C) $\frac{2}{3}$ and $\frac{4}{6}$
- D) $\frac{7}{8}$ and $\frac{9}{8}$

■ Unlike denominators are those that are different from each other.

Explain why it is necessary to find a common denominator when subtracting fractions with unlike denominators.

Hint: Consider how fractions are combined.

Finding a common denominator allows fractions to be expressed with the same bottom number, making subtraction possible.

List the steps involved in subtractin fractions with unlike denominators.

Hint: Think about the process from start to finish.

1. What is the first step?

Find the least common denominator.

2. What do you do next?

Convert the fractions to equivalent fractions.

3. What is the final step?

Subtract the numerators and simplify if necessary.

The steps include finding a common denominator, converting the fractions, and then subtractin the numerators.

What is the least common denominator of $\frac{1}{3}$ and $\frac{1}{4}$?

Hint: Think about the smallest number that both denominators can divide into.

A) 3

- B) 4
 C) 12 ✓
 D) 7

■ The least common denominator of $\frac{1}{3}$ and $\frac{1}{4}$ is 12.

Part 2: Understanding and Interpretation

Which of the following fractions is equivalent to $\frac{2}{3}$ when converted to a denominator of 9?

Hint: Consider how to scale the fraction to a new denominator.

- A) $\frac{4}{9}$
 B) $\frac{6}{9}$ ✓
 C) $\frac{3}{9}$
 D) $\frac{8}{9}$

■ The fraction equivalent to $\frac{2}{3}$ with a denominator of 9 is $\frac{6}{9}$.

Select all correct statements about equivalent fractions:

Hint: Think about the properties of fractions that are equal.

- A) They have the same value. ✓
 B) They have different numerators and denominators. ✓
 C) They can be used to find a common denominator. ✓
 D) They must have the same numerator.

■ Equivalent fractions have the same value but may have different numerators and denominators.

Describe how you would convert the fractions $\frac{1}{2}$ and $\frac{1}{3}$ to have a common denominator.

Hint: Think about the multiples of the denominators.

To convert $\frac{1}{2}$ and $\frac{1}{3}$ to a common denominator, you would find the least common multiple of 2 and 3, which is 6, and then adjust the fractions accordingly.

Part 3: Application and Analysis

What is the result of subtracting $\frac{1}{4}$ from $\frac{3}{8}$ after finding a common denominator?

Hint: Calculate the difference after converting both fractions.

- A) $\frac{1}{8}$ ✓
- B) $\frac{1}{16}$
- C) $\frac{1}{2}$
- D) $\frac{1}{32}$

The result of subtracting $\frac{1}{4}$ from $\frac{3}{8}$ after finding a common denominator is $\frac{1}{8}$.

Given the fractions $\frac{5}{12}$ and $\frac{1}{3}$, which of the following are steps to subtract them?

Hint: Consider the necessary actions to perform the subtraction.

- A) Find the least common denominator. ✓
- B) Convert $\frac{1}{3}$ to $\frac{4}{12}$. ✓
- C) Subtract $\frac{1}{12}$ from $\frac{5}{12}$.
- D) Simplify the result. ✓

The steps to subtract $\frac{5}{12}$ and $\frac{1}{3}$ include finding the least common denominator, converting the fractions, and then subtracting.

Convert the fractions $\frac{2}{5}$ and $\frac{3}{10}$ to have a common denominator and subtract them. Show your work.

Hint: Think about the least common multiple of the denominators.

To convert $\frac{2}{5}$ and $\frac{3}{10}$ to a common denominator, you would find the least common multiple, which is 10, and then perform the subtraction.

If the least common denominator of two fractions is 24, which of the following pairs could the fractions be?

Hint: Consider pairs of fractions that can be expressed with a denominator of 24.

- A) $\frac{1}{2}$ and $\frac{1}{3}$ ✓
- B) $\frac{5}{8}$ and $\frac{3}{4}$
- C) $\frac{1}{6}$ and $\frac{1}{8}$
- D) $\frac{1}{4}$ and $\frac{1}{6}$

The pairs of fractions that could have a least common denominator of 24 include $\frac{1}{2}$ and $\frac{1}{3}$.

Part 4: Evaluation and Creation

Which of the following methods can be used to find the least common denominator?

Hint: Think about different strategies for finding common denominators.

- A) Prime factorization ✓
- B) Adding the denominators
- C) Listing multiples ✓
- D) Subtractin the denominators

Methods to find the least common denominator include prime factorization and listing multiples.

Analyze the process of subtractin $\frac{7}{9}$ from $\frac{5}{6}$ by finding a common denominator and simplifying the result. Explain each step.

Hint: Break down the process into clear steps.

The process involves finding a common denominator, converting the fractions, subtracting the numerators, and simplifying the result.

Which of the following best evaluates the accuracy of subtracting $\frac{3}{7}$ from $\frac{2}{5}$ using a common denominator of 35?

Hint: Consider the result after performing the subtraction.

- A) Correct, the result is $\frac{1}{35}$
- B) Incorrect, the result is $\frac{1}{35}$ ✓
- C) Correct, the result is $\frac{1}{35}$ after simplification
- D) Incorrect, the result is $\frac{1}{35}$ after simplification

The evaluation of subtracting $\frac{3}{7}$ from $\frac{2}{5}$ using a common denominator of 35 is incorrect, the result is not $\frac{1}{35}$.

Evaluate the following statements about subtracting fractions with unlike denominators:

Hint: Consider the truth of each statement.

- A) It is necessary to simplify the final result. ✓
- B) The least common denominator is always the product of the denominators.
- C) Equivalent fractions must be used to perform the subtraction.
- D) The process is similar to adding fractions with unlike denominators. ✓

The statements about subtracting fractions with unlike denominators include the necessity to simplify the final result and that the process is similar to adding fractions.

Create a real-world problem involving the subtraction of fractions with unlike denominators. Solve the problem and explain your reasoning.

Hint: Think about a scenario where fractions are used.

A real-world problem could involve measuring ingredients in a recipe, and the solution should show the steps taken to subtract the fractions.