

# Adding and Subtracting Mixed Numbers

Grade 5 Math • Section 4.4

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 14

## Quick Review and Helpful Hints

**Method 1 (keep mixed numbers):** Add/subtract the whole numbers, then add/subtract the fractions (using LCD). Regroup if needed.

**Method 2 (convert to improper fractions):** Convert mixed numbers to improper fractions, find the LCD, add/subtract, then convert back.

💡 When subtracting, if the fraction part of the first number is too small, borrow 1 from the whole number.

**Example:** Find  $3\frac{2}{5} + 2\frac{3}{4}$ .

Whole numbers:  $3 + 2 = 5$ . Fractions: LCD of 5 and 4 is 20.  $\frac{2}{5} = \frac{8}{20}$ ,  $\frac{3}{4} = \frac{15}{20}$ .  $\frac{8}{20} + \frac{15}{20} = \frac{23}{20} = 1\frac{3}{20}$ . Total:  $5 + 1\frac{3}{20} = 6\frac{3}{20}$ .

💡 **Answer:**  $6\frac{3}{20}$

## Practice Problems

Add or subtract. Write your answer in simplest form.

1.  $2\frac{1}{3} + 1\frac{1}{4} =$  \_\_\_\_\_

5.  $8\frac{5}{6} - 3\frac{1}{4} =$  \_\_\_\_\_

9.  $1\frac{5}{6} + 2\frac{3}{4} =$  \_\_\_\_\_

2.  $4\frac{2}{5} + 3\frac{1}{2} =$  \_\_\_\_\_

6.  $7\frac{1}{3} - 4\frac{3}{5} =$  \_\_\_\_\_

10.  $10\frac{1}{6} - 6\frac{2}{3} =$  \_\_\_\_\_

3.  $5\frac{3}{8} + 2\frac{1}{6} =$  \_\_\_\_\_

7.  $3\frac{7}{10} + 4\frac{1}{5} =$  \_\_\_\_\_

11.  $5\frac{2}{9} + 3\frac{1}{3} =$  \_\_\_\_\_

4.  $6\frac{1}{4} - 2\frac{2}{3} =$  \_\_\_\_\_

8.  $9\frac{1}{2} - 5\frac{5}{8} =$  \_\_\_\_\_

12.  $4\frac{1}{8} - 1\frac{3}{4} =$  \_\_\_\_\_

## Word Problems

13. A recipe calls for  $2\frac{1}{3}$  cups of flour and  $1\frac{3}{4}$  cups of sugar. How many cups of dry ingredients are needed in total? \_\_\_\_\_

14. Jake has  $5\frac{1}{2}$  yards of rope. He uses  $2\frac{5}{8}$  yards for a project. How much rope is left? \_\_\_\_\_



## Answer Keys

1.  $3\frac{7}{12}$

2.  $7\frac{9}{10}$

3.  $7\frac{13}{24}$

4.  $3\frac{7}{12}$

5.  $5\frac{7}{12}$

6.  $2\frac{11}{15}$

7.  $7\frac{9}{10}$

8.  $3\frac{7}{8}$

9.  $4\frac{7}{12}$

10.  $3\frac{1}{2}$

11.  $8\frac{5}{9}$

12.  $2\frac{3}{8}$

13.  $4\frac{1}{12}$

14.  $2\frac{7}{8}$

### Step-by-Step Explanations

1. Start with the main idea. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $3\frac{7}{12}$ . Fractions are easier to combine when the pieces are the same size.

2. Keep the work tidy. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $7\frac{9}{10}$ . Always simplify at the end so the answer is clean and useful.

3. Look at what the numbers mean. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $7\frac{13}{24}$ . For mixed numbers, converting to improper fractions can make the arithmetic calmer.

4. Use the setup first. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $3\frac{7}{12}$ . Fractions are easier to combine when the pieces are the same size.

5. Check the size of the answer. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $5\frac{7}{12}$ . Always simplify at the end so the answer is clean and useful.

6. Match the operation to the words. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $2\frac{11}{15}$ . For mixed numbers, converting to improper fractions can make the arithmetic calmer.

7. Write the important values first. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $7\frac{9}{10}$ . Fractions are easier to combine when the pieces are the same size.

8. Follow the pattern carefully. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $3\frac{7}{8}$ . Always simplify at the end so the answer is clean and useful.

9. Start with the main idea. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $4\frac{7}{12}$ . For mixed numbers, converting to improper fractions can make the arithmetic calmer.

10. Keep the work tidy. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $3\frac{1}{2}$ . Fractions are easier to combine when the pieces are the same size.

11. Look at what the numbers mean. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $8\frac{5}{9}$ . Always simplify at the end so the answer is clean and useful.

12. Use the setup first. For adding and subtracting mixed numbers, use a common denominator, combine the numerators, and simplify. The result is  $2\frac{3}{8}$ . For mixed numbers, converting to improper fractions can make the arithmetic calmer.

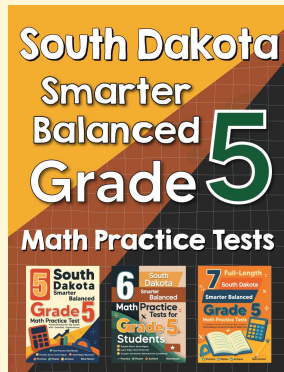
13. Check the size of the answer. For adding and subtracting mixed numbers, add whole numbers and fractions:  $2\frac{1}{3} + 1\frac{3}{4} = 3 + \frac{4}{12} + \frac{9}{12} = 4\frac{1}{12}$ . Fractions are easier to combine when the pieces are the same size.

14. Match the operation to the words. For adding and subtracting mixed numbers, convert to eighths:  $5\frac{1}{2} = 5\frac{4}{8}$  and  $2\frac{5}{8}$ ; subtract to get  $2\frac{7}{8}$ . Always simplify at the end so the answer is clean and useful.



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