Adding and Subtracting Fractions and Mixed Numbers

RETEACHING

Reteaching

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

Set A, pages 256-258

 $\frac{3}{8} + \frac{7}{8} = \frac{10}{8}$ Add the numerators. Write the sum over the common denominator.

- Simplify the sum. $=1\frac{2}{8}$
- $=1\frac{1}{4}$

Remember when adding or subtracting fractions with like denominators, the common denominator does not change

- 1. $\frac{2}{7} + \frac{4}{7} = \frac{6}{7}$
- 2. $\frac{8}{12} \frac{3}{12} \cdot \frac{5}{12}$ 4. $\frac{7}{10} + \frac{7}{10} \cdot \frac{12}{5}$
- 3. $\frac{7}{9} \frac{4}{9} = \frac{1}{3}$
- 5. $\frac{3}{6} + \frac{5}{6} \quad 1\frac{1}{3}$

Set B. pages 260-261

Find the least common multiple (LCM) of 9 and 12. Make a list of the multiples of each number.

Multiples of 9: 9, 18, 27, 36, 45, ...

Multiple of 12: 12, 24, 36, 48, ...

Identify the least number that is a multiple of both

The least common multiple of 9 and 12 is 36.

Remember that the least common multiple of two numbers is the least number that is a multiple of both of the numbers. Multiples do not involve fractions.

- 1. 3 and 5 15
- 2. 4 and 6 12
- 3. 5 and 9 45
- 4. 6 and 10 30
- 5. 8 and 12 24
- 6. 8 and 3 24
- 7. 10 and 4 20

8. 6 and 9 18

Set C, pages 262-265

Find $\frac{5}{6} + \frac{3}{4}$.

Step 1) Find the least common multiple (LCM)

The LCM is 12, so the least common denominator (LCD) is 12.

Step 2 Use the LCD to write equivalent

fractions. $\frac{5}{6} = \frac{5 \times 2}{6 \times 2} = \frac{10}{12}$ $\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$

Step 3 Add the equivalent fractions. Simplify, if possible.

$$\frac{10}{12} + \frac{9}{12} = \frac{19}{12} = 1\frac{7}{12}$$

Remember to multiply the numerator and denominator by the same number

- 1. $\frac{2}{5} + \frac{3}{10} + \frac{7}{10}$
- **2.** $\frac{7}{9} + \frac{5}{6}$ $1\frac{11}{18}$
- 3. $\frac{3}{4} \frac{5}{12} \frac{1}{3}$ 5. $\frac{5}{16} \frac{1}{8} \frac{3}{16}$ 7. $\frac{2}{3} + \frac{3}{4} \cdot \frac{15}{12}$
- 6. $\frac{7}{10} \frac{1}{6} = \frac{8}{15}$
- 9. $\frac{4}{5} \frac{1}{3} \frac{7}{15}$ 11. $\frac{2}{3} + \frac{1}{2} + \frac{3}{4} \frac{11}{12}$
- 10. $\frac{5}{8} \frac{1}{2} = \frac{1}{8}$
- when writing equivalent fractions.
- 4. $\frac{7}{8} \frac{2}{3} = \frac{5}{24}$
- - **12.** $\frac{7}{10} + \frac{4}{5} + \frac{3}{4}$ **2** $\frac{1}{4}$

Set D, pages 266-267

Find $1\frac{5}{6} + 2\frac{3}{8}$. $1\frac{5}{6} = 1\frac{20}{24}$

 $+\ 2\frac{3}{8}=\ +\ 2\frac{9}{24}$

Step 2 Add the fractions

 $3\frac{29}{24} = 4\frac{5}{24}$

Step 1) Write equivalent Remember that mixed numbers are fractions with the LCD. added the same way whole numbers

- Step 3 Add the whole
- 3. $5\frac{7}{10} + 4\frac{2}{5}$ $10\frac{1}{10}$
- numbers. Simplify the sum, if necessary.

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- **2.** $3\frac{1}{4} + 1\frac{5}{6}$ $5\frac{1}{12}$ 4. $7\frac{3}{5} + 6\frac{2}{3}$ 14 $\frac{4}{15}$
- 5. $8\frac{5}{9} + 9\frac{1}{3}$ $17\frac{8}{9}$

6. $2\frac{5}{12} + 3\frac{3}{4}$ **6**

6.
$$2\frac{5}{12} + 3\frac{3}{4}$$

Set E, pages 268-269

Find $5\frac{1}{5} - 3\frac{1}{2}$.

 $5\frac{1}{5} = 5\frac{2}{10} = 4\frac{12}{10}$ $-3\frac{1}{2} = -3\frac{5}{10} = -3\frac{5}{10}$

Step 1 Write equivalent fractions with the LCD. Step 2 Rename $5\frac{2}{10}$ to

show more tenths. Step 3 Subtract the fractions. Subtract the whole numbers. Simplify the difference. Remember that subtracting mixed fractions may require renaming.

- 3. $5\frac{2}{3} 4\frac{5}{6} \frac{5}{6}$ 5. $3\frac{1}{9} 1\frac{1}{3} \frac{17}{9}$
- 2. $2\frac{3}{5} 1\frac{1}{2}$ $1\frac{1}{10}$ 4. $9 - 3\frac{3}{8}$ $5\frac{5}{8}$ 6. $6\frac{1}{4} - 3\frac{2}{5}$ $2\frac{17}{20}$
- 7. $9\frac{1}{4} 2\frac{5}{8}$ 65
- 8. $4-1\frac{2}{5}$ 2\frac{3}{5}

Set F, pages 270–271

When you try, check, and revise to solve a problem. follow these steps:

Step 1

Make a reasonable

first try

Step 3 Use your first try to make a reasonable second try.

Step 2

Check by using information given to you.

Step 4

Keep checking until you find the answer Remember try, check, and revise can help to solve a problem.

1. Mr. Herrera wants to tile his floor with a pattern that repeats every 3 feet. Could he cover the floor without cutting off part of the pattern? Explain. See margin.

20 ft.

Topic 10 Reteaching



Answers, Set F

1. No; 3 is not a common factor of 8 and 20.