Name _____

More Adding and Subtracting Mixed Numbers

You can use what you know about adding and subtracting with mixed numbers when you simplify expressions with mixed numbers.

Simplify $\left(4\frac{1}{8} + 6\frac{1}{4}\right) - 2\frac{1}{2}$.

Step 1 Add the mixed numbers in parentheses first. Find a common denominator.

$$4\frac{1}{8} + 6\frac{1}{4}$$
$$\downarrow \qquad \downarrow$$
$$4\frac{1}{8} + 6\frac{2}{8} = 10\frac{3}{8}$$

Step 2 Subtract $2\frac{1}{2}$ from the sum you found. Find a common denominator.

$$10\frac{3}{8} - 2\frac{1}{2}$$
$$\downarrow \qquad \downarrow$$
$$10\frac{3}{8} - 2\frac{4}{8} \qquad \text{You can't subtract } \frac{4}{8} \text{ from } \frac{3}{8}.$$

Step 3 Rename if possible.

$$9\frac{11}{8} - 2\frac{4}{8} = 7\frac{7}{8}$$

In **1** through **9**, simplify each expression. Remember to rename mixed numbers if possible.

1. $\left(12\frac{4}{7} + 2\frac{3}{14}\right) - 2\frac{6}{14}$

2. $\left(5\frac{1}{2} + 2\frac{3}{4}\right) - 3\frac{1}{2}$

3. $10\frac{5}{16} - \left(5\frac{1}{4} + 2\frac{9}{16}\right)$

4. $\frac{6}{9} + \frac{5}{18} + 1\frac{3}{6}$

5. $1\frac{4}{10} + 1\frac{3}{20} + 1\frac{1}{5}$

6. $\left(3\frac{3}{8} - 1\frac{1}{5}\right) + 1\frac{7}{8}$

7. $1\frac{2}{12} + \frac{1}{6} + 7\frac{3}{4}$

8. $\left(1\frac{5}{8} + 3\frac{1}{4}\right) - 1\frac{20}{24}$

9. $5\frac{1}{4} + 7\frac{3}{20} + 1\frac{3}{4}$

10. Suzy spent $6\frac{7}{8}$ days working on her English paper, $3\frac{1}{6}$ days doing her science project, and $1\frac{1}{2}$ days studying for her math test. How many days more did Suzy spend on her English paper and math test than on her science project?

More Adding and Subtracting Mixed Numbers

In **1** through **16**, simplify each expression.

1. $2\frac{1}{8} + 4\frac{2}{3}$

2. $9\frac{1}{6} - 3\frac{2}{9}$

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

4. $6\frac{4}{5} + 5\frac{3}{10}$

5. $\left(3\frac{1}{2} + 8\frac{2}{3}\right) - 3\frac{5}{6}$

6. $\left(14\frac{1}{6} - 4\frac{5}{9}\right) + 1\frac{7}{18}$

7. $7\frac{7}{12} + \left(3\frac{1}{2} + 1\frac{7}{8}\right)$

8. $\left(10\frac{1}{4} - 5\frac{5}{8}\right) - 1\frac{3}{8}$

9. $100\frac{3}{10} - 60\frac{2}{3} - 5\frac{2}{15}$

10. $25\frac{3}{8} - \left(10\frac{4}{5} + 5\frac{7}{8}\right)$

11. $\left(2\frac{2}{3} + 4\frac{5}{6}\right) + 3\frac{3}{8}$

12. $\left(30\frac{1}{9} + 4\frac{1}{3}\right) - 19\frac{5}{6}$

13. $7\frac{2}{3} + \left(5\frac{1}{6} - 1\frac{5}{9}\right)$

14. Which shows three mixed numbers that have sum of 10?

A $1\frac{2}{3} + 3\frac{5}{12} + 4\frac{3}{4}$

C $2\frac{3}{8} + 5\frac{1}{2} + 1\frac{1}{4}$

B $3\frac{1}{3} + 3\frac{1}{4} + 3\frac{5}{12}$

D $5\frac{1}{4} + 1\frac{7}{8} + 3\frac{7}{8}$

15. What is a reasonable estimate for the sum of $4\frac{1}{8} + 3\frac{2}{3} + 5\frac{1}{2}$?

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16. Veronica is buying cubed cheese from Mr. Sand's deli. She asks for $1\frac{3}{4}$ pounds. When Mr. Sand places some cheese in a container and weighs it, the scale shows $1\frac{1}{4}$ pounds. The container weighs $\frac{1}{16}$ pound. How many more pounds of cheese would Mr. Sand need to add to the scale to get the amount that Veronica asked for? Explain how you solved the problem.

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