

Name: _____

Adding Mixed Numbers

With Different Denominators and Improper Fractions

Step 1: Find the Least Common Denominator (LCD).

$$\begin{array}{r} 4\frac{3}{4} \\ + 1\frac{7}{8} \\ \hline \end{array} \text{LCD} = 8$$

Step 2: Using the LCD, find equivalent fractions.

$$\begin{array}{r} 4\frac{3}{4} = 4\frac{6}{8} \\ + 1\frac{7}{8} = + 1\frac{7}{8} \\ \hline \end{array}$$

Step 3: Add the fractions.

$$\begin{array}{r} 4\frac{3}{4} = 4\frac{6}{8} \\ + 1\frac{7}{8} = + 1\frac{7}{8} \\ \hline 13\frac{13}{8} \end{array}$$

Step 4: Add the whole numbers.

$$\begin{array}{r} 4\frac{3}{4} = 4\frac{6}{8} \\ + 1\frac{7}{8} = + 1\frac{7}{8} \\ \hline 5\frac{13}{8} \end{array}$$

Step 5: Change improper fraction answers to mixed numbers.

$$5\frac{13}{8} - \frac{8}{8} = 6\frac{5}{8}$$

Solve and simplify your answer.

a. $6\frac{3}{8}$

b. $8\frac{1}{2}$

c. $3\frac{7}{10}$

d. $7\frac{8}{9}$



~ PREVIEW ~

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

j. $7\frac{1}{3}$
 $+ 7\frac{7}{9}$

k. $4\frac{6}{7}$
 $+ 3\frac{5}{14}$

l. $8\frac{5}{12}$
 $+ \frac{3}{4}$

m. $2\frac{7}{5}$
 $+ 3\frac{2}{10}$

n. $2\frac{5}{4}$
 $+ 2\frac{3}{8}$

o. $1\frac{1}{2}$
 $+ \frac{8}{6}$

p. $8\frac{8}{7}$
 $+ 3\frac{4}{3}$

ANSWER KEY

Adding Mixed Numbers

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Step 1: Find the Least Common Denominator (LCD).

$$\begin{array}{r} 4\frac{3}{4} \\ + 1\frac{7}{8} \end{array} \left. \vphantom{\begin{array}{r} 4\frac{3}{4} \\ + 1\frac{7}{8} \end{array}} \right\} \text{LCD} = 8$$

Step 2: Using the LCD, find equivalent fractions.

$$\begin{array}{r} 4\frac{3}{4} = 4\frac{6}{8} \\ + 1\frac{7}{8} = + 1\frac{7}{8} \end{array}$$

Step 3: Add the fractions.

$$\begin{array}{r} 4\frac{3}{4} = 4\frac{6}{8} \\ + 1\frac{7}{8} = + 1\frac{7}{8} \\ \hline \frac{13}{8} \end{array}$$

Step 4: Add the whole numbers.

$$\begin{array}{r} 4\frac{3}{4} = 4\frac{6}{8} \\ + 1\frac{7}{8} = + 1\frac{7}{8} \\ \hline 5\frac{13}{8} \end{array}$$

Step 5: Change improper fraction answers to mixed numbers.

$$5\frac{13}{8} - \frac{8}{8} = 6\frac{5}{8}$$

Solve and simplify your answer.

a. $6\frac{3}{8}$

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c. $3\frac{7}{10}$

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~ PREVIEW ~

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$$2\frac{17}{12} = 3\frac{5}{12}$$

$$6\frac{31}{28} = 7\frac{3}{28}$$

$$12\frac{20}{15} = 13\frac{5}{15} = 13\frac{1}{3}$$

$$12\frac{12}{10} = 13\frac{2}{10} = 13\frac{1}{5}$$

i.
$$\begin{array}{r} 6\frac{3}{4} \\ + 3\frac{4}{5} \\ \hline 9\frac{31}{20} = 10\frac{11}{20} \end{array}$$

j.
$$\begin{array}{r} 7\frac{1}{3} \\ + 7\frac{7}{9} \\ \hline 14\frac{10}{9} = 15\frac{1}{9} \end{array}$$

k.
$$\begin{array}{r} 4\frac{6}{7} \\ + 3\frac{5}{14} \\ \hline 7\frac{17}{14} = 8\frac{3}{14} \end{array}$$

l.
$$\begin{array}{r} 8\frac{5}{12} \\ + \frac{3}{4} \\ \hline 8\frac{14}{12} = 9\frac{2}{12} = 9\frac{1}{6} \end{array}$$

m.
$$\begin{array}{r} 2\frac{7}{5} \\ + 3\frac{2}{10} \\ \hline 5\frac{16}{10} = 6\frac{6}{10} = 6\frac{3}{5} \end{array}$$

n.
$$\begin{array}{r} 2\frac{5}{4} \\ + 2\frac{3}{8} \\ \hline 4\frac{13}{8} = 5\frac{5}{8} \end{array}$$

o.
$$\begin{array}{r} 1\frac{1}{2} \\ + \frac{8}{6} \\ \hline 1\frac{11}{6} = 2\frac{5}{6} \end{array}$$

p.
$$\begin{array}{r} 8\frac{8}{7} \\ + 3\frac{4}{3} \\ \hline 11\frac{52}{21} = 12\frac{31}{21} = 13\frac{10}{21} \end{array}$$