

Name: _____

Adding Mixed Numbers

With Different Denominators

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

$$\begin{array}{r} 3\frac{1}{2} \\ + 2\frac{3}{8} \\ \hline \end{array} \text{LCD} = 8$$

Step 2: Using the LCD, find equivalent fractions.

$$\begin{array}{r} 3\frac{1}{2} = 3\frac{4}{8} \\ + 2\frac{3}{8} = + 2\frac{3}{8} \\ \hline \end{array}$$

Step 3: Add the fractions.

$$\begin{array}{r} 3\frac{1}{2} = 3\frac{4}{8} \\ + 2\frac{3}{8} = + 2\frac{3}{8} \\ \hline \frac{7}{8} \end{array}$$

Step 4: Add the whole numbers.

$$\begin{array}{r} 3\frac{1}{2} = 3\frac{4}{8} \\ + 2\frac{3}{8} = + 2\frac{3}{8} \\ \hline 5\frac{7}{8} \end{array}$$

Solve and simplify your answer.

a.
$$\begin{array}{r} 5\frac{3}{4} \\ + 3\frac{1}{12} \\ \hline \end{array}$$

b.
$$\begin{array}{r} 9\frac{3}{5} \\ + 6\frac{4}{15} \\ \hline \end{array}$$

c.
$$\begin{array}{r} 4\frac{4}{9} \\ + 4\frac{1}{3} \\ \hline \end{array}$$

d.
$$\begin{array}{r} 6\frac{3}{10} \\ + 1\frac{2}{5} \\ \hline \end{array}$$

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

f.
$$\begin{array}{r} 1\frac{5}{6} \\ + \frac{1}{12} \\ \hline \end{array}$$

g.
$$\begin{array}{r} 4\frac{3}{8} \\ + \frac{3}{8} \\ \hline \end{array}$$

h.
$$\begin{array}{r} 7\frac{3}{5} \\ + 5\frac{1}{8} \\ \hline \end{array}$$

i.
$$\begin{array}{r} 6\frac{1}{2} \\ + 4\frac{3}{16} \\ \hline \end{array}$$

j.
$$\begin{array}{r} 7\frac{1}{6} \\ + 2\frac{1}{3} \\ \hline \end{array}$$

k.
$$\begin{array}{r} 3\frac{1}{2} \\ + 3\frac{5}{11} \\ \hline \end{array}$$

l.
$$\begin{array}{r} 5\frac{1}{9} \\ + \frac{3}{18} \\ \hline \end{array}$$

m.
$$\begin{array}{r} 8\frac{3}{8} \\ + \frac{1}{8} \\ \hline \end{array}$$

n.
$$\begin{array}{r} 5\frac{5}{12} \\ + 5\frac{7}{24} \\ \hline \end{array}$$

o.
$$\begin{array}{r} 9\frac{1}{5} \\ + 3\frac{7}{10} \\ \hline \end{array}$$

p.
$$\begin{array}{r} 7\frac{3}{5} \\ + 6\frac{1}{4} \\ \hline \end{array}$$

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Adding Mixed Numbers

With Different Denominators and Improper Fractions

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

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

Step 2: Using the LCD, find equivalent fractions.

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

Step 3: Add the fractions.

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

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.
$$\begin{array}{r} 6\frac{3}{8} \\ + 2\frac{15}{16} \\ \hline \end{array}$$

b.
$$\begin{array}{r} 8\frac{1}{2} \\ + 4\frac{5}{8} \\ \hline \end{array}$$

c.
$$\begin{array}{r} 3\frac{7}{10} \\ + \frac{3}{5} \\ \hline \end{array}$$

d.
$$\begin{array}{r} 7\frac{8}{9} \\ + 4\frac{2}{3} \\ \hline \end{array}$$

e.
$$\begin{array}{r} 2\frac{5}{6} \\ + \frac{7}{12} \\ \hline \end{array}$$

f.
$$\begin{array}{r} 5\frac{6}{7} \\ + 1\frac{1}{4} \\ \hline \end{array}$$

g.
$$\begin{array}{r} 9\frac{11}{15} \\ + 3\frac{3}{5} \\ \hline \end{array}$$

h.
$$\begin{array}{r} 7\frac{7}{10} \\ + 5\frac{1}{2} \\ \hline \end{array}$$

i.
$$\begin{array}{r} 6\frac{3}{4} \\ + 3\frac{4}{5} \\ \hline \end{array}$$

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

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

l.
$$\begin{array}{r} 8\frac{5}{12} \\ + \frac{3}{4} \\ \hline \end{array}$$

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

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

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

p.
$$\begin{array}{r} 8\frac{8}{7} \\ + 3\frac{4}{3} \\ \hline \end{array}$$

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Subtracting Mixed Numbers

With Different Denominators

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

$$\begin{array}{r} 3\frac{1}{2} \\ - 2\frac{3}{8} \\ \hline \end{array} \text{LCD} = 8$$

Step 2: Using the LCD, find equivalent fractions.

$$\begin{array}{r} 3\frac{1}{2} = 3\frac{4}{8} \\ - 2\frac{3}{8} = - 2\frac{3}{8} \\ \hline \end{array}$$

Step 3: Subtract the fractions.

$$\begin{array}{r} 3\frac{1}{2} = 3\frac{4}{8} \\ - 2\frac{3}{8} = - 2\frac{3}{8} \\ \hline 1\frac{1}{8} \end{array}$$

Step 4: Subtract the whole numbers.

$$\begin{array}{r} 3\frac{1}{2} = 3\frac{4}{8} \\ - 2\frac{3}{8} = - 2\frac{3}{8} \\ \hline 1\frac{1}{8} \end{array}$$

Solve and simplify your answer.

a.
$$\begin{array}{r} 8\frac{5}{8} \\ - 4\frac{1}{4} \\ \hline \end{array}$$

b.
$$\begin{array}{r} 9\frac{5}{9} \\ - 3\frac{1}{3} \\ \hline \end{array}$$

c.
$$\begin{array}{r} 3\frac{3}{5} \\ - 3\frac{3}{10} \\ \hline \end{array}$$

d.
$$\begin{array}{r} 6\frac{7}{15} \\ - 1\frac{2}{5} \\ \hline \end{array}$$

e.
$$\begin{array}{r} 6\frac{5}{6} \\ - 3\frac{5}{12} \\ \hline \end{array}$$

f.
$$\begin{array}{r} 1\frac{3}{4} \\ - \frac{5}{16} \\ \hline \end{array}$$

g.
$$\begin{array}{r} 12\frac{5}{8} \\ - 7\frac{2}{5} \\ \hline \end{array}$$

h.
$$\begin{array}{r} 7\frac{9}{11} \\ - 5\frac{1}{2} \\ \hline \end{array}$$

i.
$$\begin{array}{r} 2\frac{1}{2} \\ - 2\frac{5}{16} \\ \hline \end{array}$$

j.
$$\begin{array}{r} 12\frac{7}{9} \\ - 9\frac{2}{3} \\ \hline \end{array}$$

k.
$$\begin{array}{r} 4\frac{4}{7} \\ - 2\frac{1}{4} \\ \hline \end{array}$$

l.
$$\begin{array}{r} 5\frac{13}{24} \\ - \frac{5}{12} \\ \hline \end{array}$$

m.
$$\begin{array}{r} 7\frac{3}{4} \\ - \frac{9}{16} \\ \hline \end{array}$$

n.
$$\begin{array}{r} 15\frac{17}{20} \\ - 10\frac{7}{10} \\ \hline \end{array}$$

o.
$$\begin{array}{r} 6\frac{7}{8} \\ - 3\frac{3}{5} \\ \hline \end{array}$$

p.
$$\begin{array}{r} 4\frac{9}{14} \\ - 1\frac{3}{7} \\ \hline \end{array}$$