

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.

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

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

ANSWER KEY

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.
$$\begin{array}{r} 6\frac{3}{8} \\ + 2\frac{15}{16} \\ \hline 8\frac{21}{16} = 9\frac{5}{16} \end{array}$$

b.
$$\begin{array}{r} 8\frac{1}{2} \\ + 4\frac{5}{8} \\ \hline 12\frac{9}{8} = 13\frac{1}{8} \end{array}$$

c.
$$\begin{array}{r} 3\frac{7}{10} \\ + \frac{3}{5} \\ \hline 3\frac{13}{10} = 4\frac{3}{10} \end{array}$$

d.
$$\begin{array}{r} 7\frac{8}{9} \\ + 4\frac{2}{3} \\ \hline 11\frac{14}{9} = 12\frac{5}{9} \end{array}$$

e.
$$\begin{array}{r} 2\frac{5}{6} \\ + \frac{7}{12} \\ \hline 2\frac{17}{12} = 3\frac{5}{12} \end{array}$$

f.
$$\begin{array}{r} 5\frac{6}{7} \\ + 1\frac{1}{4} \\ \hline 6\frac{31}{28} = 7\frac{3}{28} \end{array}$$

g.
$$\begin{array}{r} 9\frac{11}{15} \\ + 3\frac{3}{5} \\ \hline 12\frac{20}{15} = 13\frac{5}{15} = 13\frac{1}{3} \end{array}$$

h.
$$\begin{array}{r} 7\frac{7}{10} \\ + 5\frac{1}{2} \\ \hline 12\frac{12}{10} = 13\frac{2}{10} = 13\frac{1}{5} \end{array}$$

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