Fractions: Adding fractions with different denominators. Date:

Name:

Solve each problem below, showing all your working. Convert to mixed numbers if necessary.

Look for opportunities to solve by finding the LCM (Lowest Common Multiple) to rename fractions.

$[1] \frac{3}{8} + \frac{7}{12}$	[2] $\frac{3}{5} + \frac{9}{20}$	[3] $\frac{5}{9} + \frac{11}{12}$
$[4] \frac{9}{16} + \frac{5}{12}$	[5] $\frac{11}{20} + \frac{13}{15}$	[6] $\frac{7}{8} + \frac{17}{24}$
$[7] \frac{2}{7} + \frac{16}{21}$	[8] $\frac{7}{12} + \frac{11}{18}$	[9] $\frac{5}{27} + \frac{7}{9}$
$\begin{bmatrix} 10 \end{bmatrix} \frac{5}{12} + \frac{7}{16}$	[11] $\frac{5}{18} + \frac{1}{6}$	[12] $\frac{14}{15} + \frac{2}{5}$

ANSWERS

Fractions: Adding fractions with different denominators. Date:

Name:

Solve each problem below, showing all your working. Convert to mixed numbers if necessary.

Look for opportunities to solve by finding the LCM (Lowest Common Multiple) to rename fractions.

$\begin{bmatrix} 1 \end{bmatrix} \frac{3x_{3}}{8x_{3}} + \frac{7x_{2}}{12x_{2}} + \frac{9}{12} + \frac{9}{12} + \frac{12}{24} + \frac{23}{24} = \begin{bmatrix} 23\\ 24 \end{bmatrix}$	$\begin{bmatrix} 2 \end{bmatrix} \frac{3 \times 4}{5} + \frac{9}{20} \\ \frac{12}{20} + \frac{9}{20} = 12 \\ \frac{12}{20} = 12$	$\frac{1}{20} = \frac{1}{20}$	$\begin{bmatrix} 3 \\ -3 \\ -9 \\ -4 \\ -9 \\ -3 \\ -3 \\ -3 \\ -3 \\ -3 \\ -5 \\ -5 \\ -5$	$\begin{array}{c} 2 \\ 9, 18, 27 \\ 12, 24, 36 \\ \hline \\ 53 \\ \hline \\ 36 \\ \hline \\$
$\begin{bmatrix} 4 \end{bmatrix} \frac{9_{x^{3}}}{16_{x^{3}}} + \frac{5_{x^{4}}}{12_{x^{4}}} + \frac{16_{y^{3}}}{12_{y^{4}}} + \frac{16_{y^{4}}}{12_{y^{4}}} + \frac{16_{y^{4}}}{12_{y^{4}}$	$[5] \frac{11x^{3}}{20x^{3}} + \frac{13xy}{15yu}$ $\frac{33}{60} + \frac{52}{60}$	$\frac{1}{20} \frac{20}{40} \frac{40}{60}$ $\frac{15}{5} \frac{30}{60} \frac{45}{50} \frac{15}{60}$ $= \frac{85}{60} \frac{15}{50}$ $= \frac{1}{10} \frac{1}{4}$	$\begin{bmatrix} 6 \end{bmatrix} \frac{7_{x}}{8} + \frac{17}{24} \\ \frac{21}{24} + \frac{17}{24} \\ \frac{21}{24} + \frac{17}{24} \end{bmatrix}$	$ \begin{array}{c} L \ Cm \\ 8 \ 16 \ 24 \\ 24 \\ 24 \\ $
$[7] \frac{2x^{3}}{7x_{3}} + \frac{16}{21} \qquad 7 10 21$ $\frac{6}{21} + \frac{16}{21} = \frac{22}{21} = 1 = 121$	$[8] \frac{7\times^{7}}{12} + \frac{11}{18} + \frac{11}{18} + \frac{11}{18} + \frac{21}{36} + \frac{21}{36$	$\begin{array}{c} 1 & 2 \\ 12, 24, 36 \\ 18, 36 \\ 43 \\ -43 \\ -136 \\ -13$	$\begin{bmatrix} 9 \end{bmatrix} \frac{5}{27} + \frac{7 \cdot 3}{9 \cdot 3}$ $\frac{5}{27} + \frac{2!}{27} = \begin{bmatrix} 5 \\ 27 \end{bmatrix} = \begin{bmatrix} 2 \\ 27 \end{bmatrix} $	26 27 27 27 26
$\begin{bmatrix} 10 \end{bmatrix} \frac{5 \times 4}{12} + \frac{7 \times 3}{16} = \begin{bmatrix} 2 & 2 & 2 \\ 1 & 2 & 4 \\ 1 & 2 & 4 \\ \frac{2}{48} + \frac{2}{48} = \begin{bmatrix} 4 \\ 48 \end{bmatrix}$	$)[11] \frac{5}{18} + \frac{1 \times 5}{6 \times 3}$ $\frac{5}{18} + \frac{3}{18} =$	18 6, 12, 18 6, 12, 18 8 - 4 18	$\begin{bmatrix} 12 \end{bmatrix} \frac{14}{15} + \frac{2 \times 3}{5 \times 3}$ $\frac{14}{15} + \frac{6}{15} =$	