

Mixed Number Addition and Subtraction

Example 1

$$\begin{aligned}2\frac{1}{4} + 3\frac{2}{5} \\&= 5\frac{5+8}{20} \\&= 5\frac{13}{20}\end{aligned}$$

Example 2

$$\begin{aligned}3\frac{3}{4} + 2\frac{2}{3} \\&= 5\frac{9+8}{12} \\&= 5\frac{17}{12} \\&= 6\frac{5}{12}\end{aligned}$$

Exercise

$$\begin{aligned}1) \quad 3\frac{1}{4} + 1\frac{1}{7} \\&= 4\frac{7+4}{28} \\&= 4\frac{11}{28}\end{aligned}$$

$$\begin{aligned}2) \quad 1\frac{4}{5} + 2\frac{1}{2} \\&= 3\frac{8+5}{10} \\&= 3\frac{13}{10} = 4\frac{3}{10}\end{aligned}$$

$$\begin{aligned}3) \quad 4\frac{2}{3} + 2\frac{1}{5} \\&= 6\frac{10+3}{15} \\&= 6\frac{13}{15}\end{aligned}$$

$$\begin{aligned}4) \quad 3\frac{7}{8} + 1\frac{1}{3} \\&= 4\frac{21+8}{24} \\&= 4\frac{29}{24} = 5\frac{5}{24}\end{aligned}$$

$$\begin{aligned}5) \quad 3\frac{2}{5} + 3\frac{1}{2} \\&= 6\frac{4+5}{10} \\&= 6\frac{9}{10}\end{aligned}$$

$$\begin{aligned}6) \quad 4\frac{3}{4} + 2\frac{2}{3} \\&= 6\frac{9+8}{12} \\&= 6\frac{17}{12} = 7\frac{5}{12}\end{aligned}$$

$$\begin{aligned}
 7) \quad & 3\frac{5}{7} + 1\frac{1}{2} \\
 & = 4\frac{10+7}{14} \\
 & = 4\frac{17}{14} = 5\frac{3}{14}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 5\frac{1}{4} + 1\frac{1}{2} \\
 & = 6\frac{1+2}{4} \\
 & = 6\frac{3}{4}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 4\frac{7}{10} + 1\frac{1}{3} \\
 & = 5\frac{21+10}{30} \\
 & = 5\frac{31}{30} = 6\frac{1}{30}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 6\frac{1}{5} + 1\frac{2}{3} \\
 & = 7\frac{3+10}{15} \\
 & = 7\frac{13}{15}
 \end{aligned}$$

Subtraction

$$\begin{aligned}
 \text{Ex 1} \quad & 7\frac{3}{4} - 1\frac{1}{5} \\
 & = 6\frac{15-4}{20} \\
 & = 6\frac{11}{20}
 \end{aligned}$$

$$\begin{aligned}
 \text{Ex 2} \quad & 6\frac{2}{5} - 1\frac{3}{4} \\
 & = 4\overset{20+}{8}\frac{8-15}{20} \\
 & = 4\frac{13}{20}
 \end{aligned}$$

$$\begin{aligned}
 \text{Ex 3} \quad & 8\frac{1}{3} - 2\frac{4}{5} \\
 & = 5\overset{15+}{6}\frac{5-12}{15} \\
 & = 5\frac{8}{15}
 \end{aligned}$$

$$\begin{aligned}
 \text{Ex 4} \quad & 7\frac{7}{10} - 1\frac{1}{3} \\
 & = 6\frac{21-10}{30} \\
 & = 6\frac{11}{30}
 \end{aligned}$$

Exercise

$$\begin{aligned} 1) \quad & 3\frac{4}{5} - 1\frac{1}{2} \\ & = 2\frac{8-5}{10} \\ & = 2\frac{3}{10} \end{aligned}$$

$$\begin{aligned} 2) \quad & 6\frac{1}{4} - 1\frac{1}{3} \\ & = 4\overset{12x}{8}\frac{3-4}{12} \\ & = 4\frac{11}{12} \end{aligned}$$

$$\begin{aligned} 3) \quad & 8\frac{4}{5} - 1\frac{1}{4} \\ & = 7\frac{16-5}{20} \\ & = 7\frac{11}{20} \end{aligned}$$

$$\begin{aligned} 4) \quad & 9\frac{1}{3} - 3\frac{3}{5} \\ & = 5\overset{15x}{6}\frac{5-9}{15} \\ & = 5\frac{11}{15} \end{aligned}$$

$$\begin{aligned} 5) \quad & 7\frac{1}{2} - 1\frac{5}{6} \\ & = 5\overset{6x}{6}\frac{3-5}{6} \\ & = 5\frac{4}{6} = 5\frac{2}{3} \end{aligned}$$

$$\begin{aligned} 6) \quad & 7\frac{2}{9} - 1\frac{1}{2} \\ & = 6\frac{4-9}{18} \\ & = 6\frac{5}{18} \end{aligned}$$

$$\begin{aligned} 7) \quad & 3\frac{1}{3} - 2\frac{1}{2} \\ & = 0\overset{6x}{6}\frac{2-3}{6} \\ & = \frac{5}{6} \end{aligned}$$

$$\begin{aligned} 8) \quad & 7\frac{1}{4} - 1\frac{1}{3} \\ & = 5\overset{12x}{6}\frac{3-4}{12} \\ & = 5\frac{11}{12} \end{aligned}$$

$$\begin{aligned} 9) \quad & 7\frac{1}{7} - 2\frac{3}{4} \\ & = 4\overset{28x}{8}\frac{4-21}{28} \\ & = 4\frac{11}{28} \end{aligned}$$

$$\begin{aligned} 10) \quad & 8\frac{6}{7} - 1\frac{1}{2} \\ & = 7\frac{12-7}{14} \\ & = 7\frac{5}{14} \end{aligned}$$
