

Adding Mixed Numbers to Whole Numbers or Fractions

AMN 1

Instructions: Add these mixed numbers, whole numbers and fractions.

$$\begin{aligned} 1 \quad & 3\frac{2}{9} + 5 \\ & = 5 + 3 + \frac{2}{9} \\ & = \left(8\frac{2}{9}\right) \end{aligned}$$

$$\begin{aligned} 2 \quad & \frac{1}{7} + 6\frac{5}{7} \\ & = 6 + \frac{1}{7} + \frac{5}{7} \\ & = \left(6\frac{6}{7}\right) \end{aligned}$$

$$\begin{aligned} 3 \quad & \frac{1}{3} + 5\frac{1}{3} \\ & = 5 + \frac{1}{3} + \frac{1}{3} \\ & = \left(5\frac{2}{3}\right) \end{aligned}$$

$$\begin{aligned} 4 \quad & 4 + 6\frac{1}{9} \\ & = 4 + 6 + \frac{1}{9} \\ & = \left(10\frac{1}{9}\right) \end{aligned}$$

$$\begin{aligned} 5 \quad & 1\frac{1}{8} + 1 \\ & = 1 + 1 + \frac{1}{8} \\ & = \left(2\frac{1}{8}\right) \end{aligned}$$

$$\begin{aligned} 6 \quad & 2\frac{4}{10} + \frac{3}{10} \\ & = 2 + \frac{4}{10} + \frac{3}{10} \\ & = \left(2\frac{7}{10}\right) \end{aligned}$$

$$\begin{aligned} 7 \quad & 20 + 3\frac{5}{6} \\ & = 20 + 3 + \frac{5}{6} \\ & = \left(23\frac{5}{6}\right) \end{aligned}$$

$$\begin{aligned} 8 \quad & 7\frac{5}{12} + 7 \\ & = 7 + 7 + \frac{5}{12} \\ & = \left(14\frac{5}{12}\right) \end{aligned}$$

$$\begin{aligned} 9 \quad & \frac{1}{7} + 4 + 1\frac{2}{7} \\ & = 4 + 1 + \frac{1}{7} + \frac{2}{7} \\ & = \left(5\frac{3}{7}\right) \end{aligned}$$

$$\begin{aligned} 10 \quad & 7 + 3\frac{1}{5} + 10 \\ & = 7 + 3 + 10 + \frac{1}{5} \\ & = \left(20\frac{1}{5}\right) \end{aligned}$$

Adding Mixed Numbers (with like fractions)

AMN 2

Instructions: Add these mixed numbers. Regroup and/or simplify your answers if possible.

$$\begin{aligned} 1 \quad & 4\frac{1}{5} + 1\frac{3}{5} \\ & = 4 + 1 + \frac{1}{5} + \frac{3}{5} \\ & = \left(5\frac{4}{5}\right) \end{aligned}$$

$$\begin{aligned} 2 \quad & 2\frac{1}{4} + 5\frac{3}{4} \\ & = 2 + 5 + \frac{1}{4} + \frac{3}{4} \\ & = 7\frac{4}{4} = \left(8\right) \end{aligned}$$

$$\begin{aligned} 3 \quad & 3\frac{4}{9} + 3\frac{1}{9} \\ & = 3 + 3 + \frac{4}{9} + \frac{1}{9} \\ & = \left(6\frac{5}{9}\right) \end{aligned}$$

$$\begin{aligned} 4 \quad & 8\frac{1}{3} + 2\frac{1}{3} \\ & = 8 + 2 + \frac{1}{3} + \frac{1}{3} \\ & = \left(10\frac{2}{3}\right) \end{aligned}$$

$$\begin{aligned} 5 \quad & 10\frac{1}{8} + 1\frac{3}{8} \\ & = 10 + 1 + \frac{1}{8} + \frac{3}{8} \\ & = 11\frac{4}{8} = \left(11\frac{1}{2}\right) \end{aligned}$$

$$\begin{aligned} 6 \quad & 1\frac{6}{10} + 3\frac{4}{10} \\ & = 1 + 3 + \frac{6}{10} + \frac{4}{10} \\ & = 4\frac{10}{10} = \left(5\right) \end{aligned}$$

$$\begin{aligned} 7 \quad & 7\frac{3}{12} + 8\frac{5}{12} \\ & = 7 + 8 + \frac{3}{12} + \frac{5}{12} \\ & = 15\frac{8}{12} = \left(15\frac{2}{3}\right) \end{aligned}$$

$$\begin{aligned} 8 \quad & 4\frac{1}{9} + 8\frac{5}{9} \\ & = 4 + 8 + \frac{1}{9} + \frac{5}{9} \\ & = 12\frac{6}{9} = \left(12\frac{2}{3}\right) \end{aligned}$$

$$\begin{aligned} 9 \quad & 1\frac{1}{8} + 2\frac{2}{8} + 3\frac{3}{8} \\ & = 1 + 2 + 3 + \frac{1}{8} + \frac{2}{8} + \frac{3}{8} \\ & = 6\frac{6}{8} = \left(6\frac{3}{4}\right) \end{aligned}$$

$$\begin{aligned} 10 \quad & 2\frac{1}{3} + 3\frac{1}{3} + 4\frac{1}{3} \\ & = 2 + 3 + 4 + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} \\ & = 9\frac{3}{3} = \left(10\right) \end{aligned}$$

Adding Mixed Numbers (with answers that need regrouping)

AMN 3

Instructions: Add these mixed numbers. Regroup and/or simplify your answers if possible.

$$\begin{aligned}
 \text{1} \quad & 2\frac{4}{5} + 1\frac{3}{5} \\
 & = 2 + 1 + \frac{4}{5} + \frac{3}{5} \\
 & = 3 + \frac{7}{5} = 3 + \frac{5}{5} + \frac{2}{5} \\
 & = 3 + 1 + \frac{2}{5} = \boxed{4\frac{2}{5}}
 \end{aligned}$$

$$\begin{aligned}
 \text{2} \quad & 5\frac{4}{7} + 3\frac{4}{7} \\
 & = 5 + 3 + \frac{4}{7} + \frac{4}{7} \\
 & = 8 + \frac{8}{7} = 8 + \frac{7}{7} + \frac{1}{7} \\
 & = 8 + 1 + \frac{1}{7} = \boxed{9\frac{1}{7}}
 \end{aligned}$$

$$\begin{aligned}
 \text{3} \quad & 3\frac{3}{8} + 2\frac{6}{8} \\
 & = 3 + 2 + \frac{3}{8} + \frac{6}{8} \\
 & = 5 + \frac{9}{8} = 5 + \frac{8}{8} + \frac{1}{8} \\
 & = 5 + 1 + \frac{1}{8} = \boxed{6\frac{1}{8}}
 \end{aligned}$$

$$\begin{aligned}
 \text{4} \quad & 9\frac{3}{5} + 5\frac{3}{5} \\
 & = 9 + 5 + \frac{3}{5} + \frac{3}{5} \\
 & = 14 + \frac{6}{5} = 14 + \frac{5}{5} + \frac{1}{5} \\
 & = 14 + 1 + \frac{1}{5} = \boxed{15\frac{1}{5}}
 \end{aligned}$$

$$\begin{aligned}
 \text{5} \quad & 5\frac{9}{10} + 5\frac{4}{10} \\
 & = 5 + 5 + \frac{9}{10} + \frac{4}{10} \\
 & = 10 + \frac{13}{10} = 10 + \frac{10}{10} + \frac{3}{10} \\
 & = 10 + 1 + \frac{3}{10} = \boxed{11\frac{3}{10}}
 \end{aligned}$$

$$\begin{aligned}
 \text{6} \quad & 7\frac{2}{3} + 1\frac{4}{3} \\
 & = 7 + 1 + \frac{2}{3} + \frac{4}{3} \\
 & = 8 + \frac{6}{3} = 8 + \frac{3}{3} + \frac{3}{3} \\
 & = 8 + 1 + 1 = \boxed{10}
 \end{aligned}$$

$$\begin{aligned}
 \text{7} \quad & 1\frac{3}{8} + 5\frac{7}{8} \\
 & = 1 + 5 + \frac{3}{8} + \frac{7}{8} \\
 & = 6 + \frac{10}{8} = 6 + \frac{8}{8} + \frac{2}{8} \\
 & = 6 + 1 + \frac{2}{8} = 7\frac{2}{8} = \boxed{7\frac{1}{4}}
 \end{aligned}$$

$$\begin{aligned}
 \text{8} \quad & 2\frac{5}{6} + 1\frac{2}{6} \\
 & = 2 + 1 + \frac{5}{6} + \frac{2}{6} \\
 & = 3 + \frac{7}{6} = 3 + \frac{6}{6} + \frac{1}{6} \\
 & = 3 + 1 + \frac{1}{6} = \boxed{4\frac{1}{6}}
 \end{aligned}$$

Adding Mixed Numbers (with un-like fractions)

AMN 4

Instructions: Add these mixed numbers. Regroup and/or simplify your answers if possible.

$$\begin{aligned} \mathbf{1} \quad & 3\frac{2}{3} + 6\frac{1}{4} \\ & = 3 + 6 + \left(\frac{4}{4}\right)\frac{2}{3} + \frac{1}{4}\left(\frac{3}{3}\right) \\ & = 9 + \frac{8}{12} + \frac{3}{12} = \mathbf{9\frac{11}{12}} \end{aligned}$$

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

$$\begin{aligned} \mathbf{3} \quad & 4\frac{1}{2} + 3\frac{1}{8} \\ & = 4 + 3 + \left(\frac{4}{4}\right)\frac{1}{2} + \frac{1}{8} \\ & = 7 + \frac{4}{8} + \frac{1}{8} = \mathbf{7\frac{5}{8}} \end{aligned}$$

$$\begin{aligned} \mathbf{4} \quad & 7\frac{3}{4} + 2\frac{1}{3} \\ & = 7 + 2 + \left(\frac{3}{3}\right)\frac{3}{4} + \frac{1}{3}\left(\frac{4}{4}\right) \\ & = 9 + \frac{9}{12} + \frac{4}{12} = 9\frac{13}{12} \\ & = 9 + \frac{12}{12} + \frac{1}{12} = \mathbf{10\frac{1}{12}} \end{aligned}$$

$$\begin{aligned} \mathbf{5} \quad & 1\frac{2}{3} + 5\frac{1}{2} \\ & = 1 + 5 + \left(\frac{2}{2}\right)\frac{2}{3} + \frac{1}{2}\left(\frac{3}{3}\right) \\ & = 6 + \frac{4}{6} + \frac{3}{6} = 6\frac{7}{6} \\ & = 6 + \frac{6}{6} + \frac{1}{6} = \mathbf{7\frac{1}{6}} \end{aligned}$$

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

$$\begin{aligned} \mathbf{7} \quad & 3\frac{3}{10} + 1\frac{1}{2} \\ & = 3 + 1 + \frac{3}{10} + \frac{1}{2}\left(\frac{5}{5}\right) \\ & = 4 + \frac{3}{10} + \frac{5}{10} = 4\frac{8}{10} \\ & = \mathbf{4\frac{4}{5}} \end{aligned}$$

$$\begin{aligned} \mathbf{8} \quad & 6\frac{7}{9} + 10\frac{2}{3} \\ & = 6 + 10 + \frac{7}{9} + \frac{2}{3}\left(\frac{3}{3}\right) \\ & = 16 + \frac{7}{9} + \frac{6}{9} = 16\frac{13}{9} \\ & = 16 + \frac{9}{9} + \frac{4}{9} = \mathbf{17\frac{4}{9}} \end{aligned}$$

Adding Mixed Numbers (stacked format)

AMN 5

Instructions: Add these mixed numbers. In some problems, you may need to convert to like-fractions. Regroup and/or simplify your answers if possible.

$$\begin{array}{r} 1 \quad 7\frac{1}{5} \\ + 2\frac{3}{5} \\ \hline 9\frac{4}{5} \end{array}$$

$$\begin{array}{r} 2 \quad 4\frac{1}{2} \left(\frac{2}{2}\right) \quad 4\frac{2}{4} \\ + 1\frac{3}{4} \quad + 1\frac{3}{4} \\ \hline 5\frac{5}{4} \\ \text{regroup} \\ = 5 + \frac{4}{4} + \frac{1}{4} = 6\frac{1}{4} \end{array}$$

$$\begin{array}{r} 3 \quad 8\frac{2}{5} \left(\frac{3}{3}\right) \quad 8\frac{6}{15} \\ + 2\frac{1}{3} \left(\frac{5}{5}\right) \quad + 2\frac{5}{15} \\ \hline 10\frac{11}{15} \end{array}$$

$$\begin{array}{r} 4 \quad 3\frac{1}{2} \left(\frac{7}{7}\right) \quad 3\frac{7}{14} \\ + 4\frac{3}{7} \left(\frac{2}{2}\right) \quad + 4\frac{6}{14} \\ \hline 7\frac{13}{14} \end{array}$$

$$\begin{array}{r} 5 \quad 12\frac{3}{8} \\ + 3\frac{3}{8} \\ \hline 15\frac{6}{8} = 15\frac{3}{4} \end{array}$$

$$\begin{array}{r} 6 \quad 1\frac{7}{8} \quad 1\frac{7}{8} \\ + 1\frac{1}{2} \left(\frac{4}{4}\right) \quad + 1\frac{4}{8} \\ \hline 2\frac{11}{8} \\ \text{regroup} \\ = 2 + \frac{8}{8} + \frac{3}{8} = 3\frac{3}{8} \end{array}$$

$$\begin{array}{r} 7 \quad 9\frac{1}{10} \\ + 4\frac{7}{10} \\ \hline 13\frac{8}{10} = 13\frac{4}{5} \end{array}$$

$$\begin{array}{r} 8 \quad 10\frac{1}{3} \\ + 1\frac{2}{3} \\ \hline 11\frac{3}{3} = 12 \end{array}$$

$$\begin{array}{r} 9 \quad 4\frac{5}{6} \quad 4\frac{5}{6} \\ + 4\frac{1}{2} \left(\frac{3}{3}\right) \quad + 4\frac{3}{6} \\ \hline 8\frac{8}{6} \\ \text{regroup} \\ = 8 + \frac{6}{6} + \frac{2}{6} = 9\frac{2}{6} \\ = 9\frac{1}{3} \end{array}$$