

Add and Subtract Mixed Numbers

When you add or subtract two mixed numbers first you convert the mixed numbers to fractions then add or subtract.

Find the sum of $5\frac{2}{3}$ and $3\frac{1}{2}$

To find the sum is to add

$$5\frac{2}{3} + 3\frac{1}{2}$$

$$5\frac{2}{3} + 3\frac{1}{2} \quad \text{convert the mixed numbers to fractions}$$

$$= \frac{5 \times 3 + 2}{3} + \frac{3 \times 2 + 1}{2} \quad \text{simplify}$$

$$= \frac{17}{3} + \frac{7}{2} \quad \text{LCD}(2,3) = 6$$

$$= \frac{17 \times 2}{3 \times 2} + \frac{7 \times 3}{2 \times 3} \quad \text{Multiply to have 6 as a denominator}$$

$$= \frac{34}{6} + \frac{21}{6} \quad \text{Add the numerators}$$

$$= \frac{55}{6} \quad \text{Convert the fraction to a mixed number}$$

$$= 9\frac{1}{6}$$