

9/3 1.6 Ext. Adding/Subtracting Fractions
LCD = Least Common Denominator of 2 fractions
 is the **LCM** of the denominators.

1) Find the LCM (of the denominators)

$3 \times \frac{5}{8} + \frac{1 \times 4}{6 \times 4}$
 $\frac{15}{24} + \frac{4}{24} = \frac{19}{24}$

Prime factorization: 8 = 2³, 6 = 2¹ × 3¹
 LCM = 2³ × 3¹ = 24

Try it! ① $\frac{2}{3} + \frac{3}{4}$ → $\frac{8}{12} + \frac{9}{12} = \frac{17}{12}$

② $\frac{7}{6} - \frac{5}{12}$ → $\frac{42}{60} - \frac{25}{60} = \frac{17}{60}$

③ $\frac{13}{18} - \frac{5}{8}$ → $\frac{52}{72} - \frac{45}{72} = \frac{7}{72}$

④ $\frac{2}{4} + \frac{3}{8}$ → $\frac{2}{4} + \frac{3}{8} = \frac{5}{8}$

Mixed Number

EX $4\frac{3}{4} - 2\frac{3}{10}$ → $4\frac{15}{20} - 2\frac{6}{20} = 2\frac{9}{20}$

Prime factorization: 4 = 2², 10 = 2¹ × 5¹
 LCM = 2² × 5¹ = 20

① $2\frac{1}{6} + 3\frac{4}{9}$ → $2\frac{3}{18} + 3\frac{8}{18} = 5\frac{11}{18}$

Prime factorization: 6 = 2¹ × 3¹, 9 = 3²
 LCM = 2¹ × 3² = 18

② $4\frac{3}{16} + 1\frac{1}{10}$ → $4\frac{15}{80} + 1\frac{8}{80} = 5\frac{23}{80}$

Prime factorization: 16 = 2⁴, 10 = 2¹ × 5¹
 LCM = 2⁴ × 5¹ = 80