Lesson 4.5 Add and Subtract Mixed Numbers

Objective: TO add and subtract Mixed numbers.

Ex. 1 Find $7\frac{4}{9} + 10\frac{2}{9}$. Write in simplest form.

$$\begin{array}{r} 7\frac{4}{9} \\ +\ 10\frac{2}{9} \\ \hline 17\frac{6}{9} \end{array}$$

$\frac{6}{9} \div 3 = \frac{2}{3} \div 3 = \frac{2}{3}$

$= \boxed{17\frac{2}{3}}$

Ex. 2 Find $5\frac{1}{5} + 2\frac{3}{10}$. Write in simplest form.

$$\begin{array}{r} 5 \\ +\ 2\ \frac{3}{10} \\ \hline 7\ \frac{5}{10} \end{array}$$

$\frac{1}{5} \cdot 2 = \frac{2}{10}$

$\frac{5}{10} \div 5 = \frac{1}{2}$

$= \boxed{7\frac{1}{2}}$

Ex. 3 Find $2\frac{1}{3} - 1\frac{2}{3}$.

Method 1: Borrowing.

$$\begin{array}{r} 1\ \not{2}\ \frac{1}{3} + \frac{3}{3} = \frac{4}{3} \\ -\ 1\ \frac{2}{3} \\ \hline \frac{2}{3} \end{array}$$

$= \boxed{\frac{2}{3}}$

Method 2: Write as improper fractions

$2\frac{1}{3} = \frac{7}{3}$ $1\frac{2}{3} = \frac{5}{3}$

$$\begin{array}{r} \frac{7}{3} \\ -\ \frac{5}{3} \\ \hline \boxed{\frac{2}{3}} \end{array}$$

$\frac{7}{3} - \frac{5}{3} = \boxed{\frac{2}{3}}$