Lesson 4-3
Adding and Subtracting Mixed Numbers

Review: Change the mixed numbers below into improper fractions OR change the improper fraction into a mixed number.

$2\frac{3}{4} = \frac{11}{4}$

$\frac{41}{8} = 5\frac{1}{8}$

$8\overline{)41}$ 5, -40, 1

How do we add or subtract mixed numbers?

$$2\frac{2}{3} + 1\frac{3}{4} =$$

Step 1: Change each mixed number into an improper fraction.

$2\frac{2}{3} = \frac{8}{3}$ $\qquad$ $1\frac{3}{4} = \frac{7}{4}$

Step 2: Rewrite each improper fraction using a common denominator.

$\frac{8}{3} = \frac{32}{12}$ $\qquad$ $\frac{7}{4} = \frac{21}{12}$

Step 3: Add or subtract the "new" fractions.

$\frac{32}{12} + \frac{21}{12} = \frac{53}{12}$

Step 4: Simplify.

$12\overline{)53}$ 4, -48, 5 $\quad = 4\frac{5}{12}$

Step 5: Write as a mixed number.

$4\frac{5}{12}$

You Try! Add or subtract the fractions and mixed numbers below.

$5\frac{3}{4}+\frac{7}{8}=$

$\frac{23}{4}+\frac{7}{8}=\frac{46}{8}+\frac{7}{8}=\frac{53}{8}=6\frac{5}{8}$

$-\frac{7}{8}+\frac{3}{4}=$

$-\frac{7}{8}+\frac{6}{8}=-\frac{1}{8}$

$\frac{3}{7}+\frac{2}{3}=$

$\frac{9}{21}+\frac{14}{21}=\frac{23}{21}=1\frac{2}{21}$

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

$\frac{19}{7}+\frac{7}{5}+\frac{23}{7}$ $\quad 23\times 5=115$ $\quad 19\times 5=95$ $\quad 49$ $\quad 259$

$\frac{95}{35}+\frac{49}{35}+\frac{115}{35}=\frac{259}{35}=7\frac{14}{35}=7\frac{2}{5}$ $\quad 7\frac{2}{5}$

Challenge: Add or subtract the fractions below.

20: 20 40 60 80 (100)

25: 25 50 75 (100)

$\frac{7}{20}+\frac{15}{25}=$

$\frac{35}{100}+\frac{60}{100}=\frac{95}{100}=\frac{19}{20}$

$-\frac{5}{66}+\left(-\frac{7}{99}\right)=$