Lesson Notes 6.4

Lesson Objectives

- Model addition and subtraction of mixed numbers using diagrams and/or illustrations of manipulatives.
- Develop and use algorithms to add and to subtract mixed numbers.

Subtopic 1   Adding Mixed Numbers

Adding Mixed Numbers
- Write **equivalent** fractions using the LCD.
- Add the **fractions**.
- Add the **whole numbers**.
- Write the sum in **simplest form**.

1 On Monday, Carter walked $4\frac{3}{5}$ miles. On Tuesday, he walked $2\frac{3}{5}$ miles. How many miles did Carter walk both days?

$$4\frac{3}{5} + 2\frac{3}{5}$$

$$6\frac{6}{5}$$

$$6 + \frac{6}{5}$$

$$6 + 1 + \frac{1}{5}$$

$$7\frac{1}{5}$$

Carter walked $7\frac{1}{5}$ miles in both days.

2   Jodi hiked up to the mountain peak in $6\frac{1}{2}$ hours. It took her $3\frac{4}{5}$ hours to hike back down to her starting point. How long did she hike altogether?

$$6\frac{1}{2} + 3\frac{4}{5}$$

$$6\frac{1\cdot5}{2\cdot5} + 3\frac{4\cdot2}{5\cdot2}$$

$$6\frac{5}{10} + 3\frac{8}{10}$$

$$9\frac{13}{10}$$

$$10\frac{3}{10}$$

Jodi hiked $10\frac{3}{10}$ hours altogether.

Subtopic 2   **Subtraction of Mixed Numbers**

Subtracting Mixed Numbers
- Write the equivalent fractions using the **LCD**, if necessary.
- Subtract the **fractions**. Regroup, if necessary.
- Subtract the **whole numbers**.
- Write the difference in **simplest form**.

3   The Moon Sox baseball team played a doubleheader. The first game was played in $3\frac{1}{4}$ hours. The second game was played in $1\frac{3}{4}$ hours. How much more time did it take to play the first game?

$$3\frac{1}{4} - 1\frac{3}{4}$$

$$2\frac{5}{4} - 1\frac{3}{4}$$

$$1\frac{2}{4}$$

$$1\frac{1}{2}$$

It took $1\frac{1}{2}$ hours longer to play the first game.

Module 6 **Computational Fluency of Fractions**
Lesson 4 **Adding and Subtracting Mixed Numbers**

4 Eva has 5 pounds of potatoes. She uses $3\frac{2}{5}$ pounds of potatoes to make potato salad. How many pounds of potatoes are left?

$$5 - 3\frac{2}{5}$$

$$4\frac{5}{5} - 3\frac{2}{5}$$

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

Eva has $1\frac{3}{5}$ pounds of potatoes left.

5 From a $9\frac{1}{6}$ foot piece of string, Kelly cut off $3\frac{3}{4}$ feet of string. How much string is left?

$$9\frac{1}{6} - 3\frac{3}{4}$$

$$9\frac{1\cdot 2}{6\cdot 2} - 3\frac{3\cdot 3}{4\cdot 3}$$

$$9\frac{2}{12} - 3\frac{9}{12}$$

$$8\frac{14}{12} - 3\frac{9}{12}$$

$$5\frac{5}{12}$$

There are $5\frac{5}{12}$ feet of string left.