

# Fractions Lesson 5

## Mixed Numbers

### with Signs of Operation and Comparison

### Teacher Guide

## Symbols and Concepts

- Mixed number
- Numeric indicator
- Opening mixed number indicator
- Horizontal fraction line
- Diagonal fraction line
- Closing mixed number indicator
- Plus sign (+)
- Minus sign (−)
- Multiplication cross (×)
- Multiplication dot (⋅)
- Division (divided by) sign (÷)
- Equals sign (=)
- Less than sign (<)
- Greater than sign (>)

## Objectives

The student will be able to:

- Read and write problems containing mixed numbers and signs of operation
- Read and write problems containing mixed numbers and signs of comparison
- Read and write problems containing mixed numbers involving both signs of operation and signs of comparison

## Teaching Tips

- Before opening any BRF files in Duxbury,
  - Go into the Global menu.
  - Select "**Formatted Braille Importer.**"
  - Select the box for "**Read formatted braille without interpretation**" at the top of the window. This will ensure that nothing is changed when opening the BRF files.

- This focused lesson has one version and does not include variables.
- In addition to the embedded activities within the focused lesson, there is one follow-up activity.
- The "L5-Five-Fractions-Only.brf" braille document may be used to supplement the lesson since it contains all of the examples in braille.
- The answers for the follow-up activity are available in SimBraille and braille.
- The majority of mixed numbers are written with a horizontal fraction line, and teachers tend to encourage students to write mixed numbers using one as well, whether in print or braille. The use of a horizontal fraction line is the preferred method.
- Mixed numbers with diagonal fraction lines occasionally appear in textbooks, on assessments, or in other math materials. Therefore, we have included mixed numbers with a diagonal fraction line where the numerator is raised higher than the denominator. We have chosen not to include mixed numbers with a diagonal fraction line where the numerator is not raised higher than the denominator, as these are extremely rare, and their use is discouraged.
- If needed, remind the student to check their work during writing activities.
- You may want to have the student practice reading the mixed numbers with signs of operation and comparison as well. This can be done by using the answer key.
- We maintain a list of [commercially available materials](#) that can be used to supplement instruction.

## Optional Materials

- Fraction cubes
- Fraction number lines
- Fraction tiles
- Fraction towers