

## LESSON

4-4

**Solving Multistep Problems with Fractions and Mixed Numbers****Reteach**

In order to solve some problems involving mixed numbers, you will have to rewrite the mixed number as a whole number and an improper

fraction. For example,  $2\frac{1}{3}$  can be rewritten as  $1\frac{4}{3}$ . The two numbers

are the same because  $2\frac{1}{3} = 1 + 1\frac{1}{3} = \frac{3}{3} + 1\frac{1}{3} = 1 + \frac{3}{3} + \frac{1}{3}$ .

This step is necessary when subtracting mixed numbers as shown here.

**Example**

After an office party,  $4\frac{1}{3}$  pizzas are left. A day later, there are  $1\frac{5}{6}$  pizzas left. How much pizza was eaten during the day after the party? One third of the pizza eaten on the day after the party was pepperoni. How much of the day-old pizza eaten was pepperoni?

**Solution:**

First, change the denominator to the common denominator of 6:

$$4\frac{1}{3} = 4\frac{2}{6}$$

Then, write the subtraction problem:  $4\frac{2}{6} - 1\frac{5}{6}$

Since the fraction with 4 is less than the fraction with 1, write

$4\frac{2}{6}$  as  $1 + 3\frac{2}{6}$  and write 1 as  $\frac{6}{6}$  so that the subtraction problem

becomes  $3\frac{8}{6} - 1\frac{5}{6}$ .

Subtract the whole numbers and subtract the numerators of the fractions:

$3\frac{8}{6} - 1\frac{5}{6} = 2 + \frac{3}{6}$  or  $2\frac{1}{2}$ ;  $2\frac{1}{2}$  pizzas were eaten during the next day. Of

these,  $\frac{1}{3}$  were pepperoni. So:  $2\frac{1}{2} \cdot \frac{1}{3} = \frac{5}{2} \cdot \frac{1}{3} = \frac{5}{6}$ .

On the second day,  $\frac{5}{6}$  of a pepperoni pizza was eaten.

**Solve by rewriting the mixed number that is being subtracted.**

1. A deli ordered  $6\frac{1}{2}$  wheels of cheese. Over the weekend,  $3\frac{5}{8}$  wheels of cheese were sold. On Tuesday another  $1\frac{3}{4}$  wheels were sold. How much cheese was left for Wednesday?