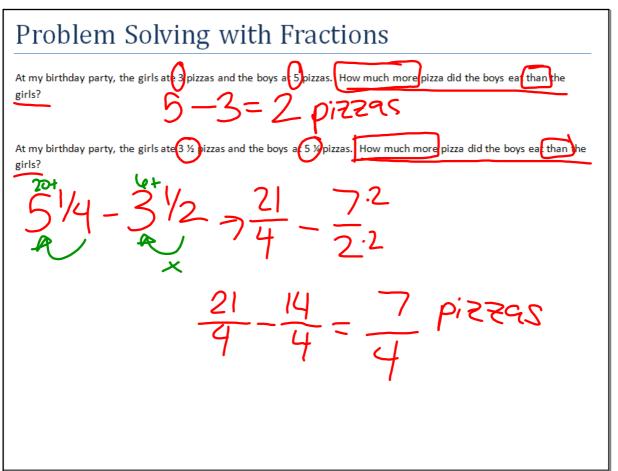# Learning Target

I can solve real world problems containing rational numbers.

Dec 4-1:53 PM

Problem Solving with Fractions

At my birthday party, the girls ate 3 pizzas and the boys ate 5 pizzas. How much more pizza did the boys eat than the girls?

$$5 - 3 = 2 \text{ pizzas}$$

At my birthday party, the girls ate 3 ½ pizzas and the boys ate 5 ¼ pizzas. How much more pizza did the boys eat than the girls?

$$5\tfrac{1}{4} - 3\tfrac{1}{2} \rightarrow \frac{21}{4} - \frac{7 \cdot 2}{2 \cdot 2}$$

$$\frac{21}{4} - \frac{14}{4} = \frac{7}{4} \text{ pizzas}$$

Dec 3-10:34 AM

1

A cooler containing (15) gallons of punch is being poured into 3-gallon containers. How many containers will it take to hold all the punch?

$$\frac{15 \text{ punch}}{3 \text{ gallon containers}} = 5 \quad \text{3-gallon containers}$$

A pitcher containing (3 ¾) gallons of punch is being poured into (3/5) gallon containers. How many containers will it take to hold all the punch?

$$\frac{15/4 \text{ punch}}{3/5 \text{ containers}} \quad C \cdot F \quad \frac{15}{4} \cdot \frac{5}{3} = \frac{75}{12}$$

$$12\overline{\smash{\big)}\,75}$$
$$\underline{-72}$$
$$3$$

$$\begin{array}{c} 0 \quad 6 \\ 12\overline{\smash{\big)}\,75} \end{array}$$

$$6\left(3/12\right) \quad 7 \text{ containers}$$

A recipe calls for 8 cups of brown sugar. If I am making ¾ of the recipe, how much brown sugar should I use?

$$3/4 \text{ of } 8 \qquad \frac{3}{4} \times \frac{8}{1} = \frac{24}{4} = 6 \text{ cups}$$

A recipe calls for 1 ¾ cups of brown sugar. If I am only making ¾ of the recipe, how much brown sugar should I use?

$$\frac{3}{4} \text{ of } 1\frac{3}{4} \qquad 1.75$$

$$\frac{3}{4} \times \frac{7}{4} = \frac{21}{16}$$

$$\begin{array}{c} 6 \quad 1 \cdot 3 \\ 16\overline{\smash{\big)}\,2\,1^{\prime\prime}0} \\ \underline{-16\downarrow} \\ 50 \\ \underline{-48} \\ 2 \end{array}$$

A bread recipe calls for 2 cups of wheat flour and 3 cups of white flour. How much flour does the recipe call for altogether?

$$2 + 3 = 5 \text{ cups of flour}$$

A bread recipe calls for $2\frac{1}{3}$ cups of wheat flour and 3 ¼ cups of white flour. How much flour does the recipe call for altogether?

$$2\frac{1}{3} + 3\frac{1}{4} \Rightarrow \frac{7 \cdot 4}{3 \cdot 4} + \frac{13 \cdot 3}{4 \cdot 3}$$

$$\frac{28}{12} + \frac{39}{12} = \frac{67}{12} \text{ cups of flour}$$

Dec 3-10:37 AM

More Practice

1. Claire earned $60 babysitting on Friday night. She spent ¼ of it at the movies, 1/3 going out to dinner, and she saved the rest. How much money did she save?

$$\frac{1}{4} \times \frac{60}{1} = \frac{60}{4} \quad \Big| \quad \frac{1}{3} \times \frac{60}{1} = \frac{60}{3} \qquad \begin{array}{r} 60 \\ -35 \\ \hline 25 \end{array}$$

$$15 + 20 = \$35 \qquad \$25 \text{ saved}$$

2. I have $10\frac{4}{5}$ cups of cake batter to split amongst 18 cupcakes. How many cups of batter will I use for each cupcake?

$$\frac{10\,4/5 \text{ cups}}{18 \text{ cupcakes}} \rightarrow \frac{54}{5} \cdot \frac{1}{18} = \frac{54 \div 18}{90 \div 18} = \frac{3}{5} \text{ cups of batter per cupcake}$$

Dec 4-1:08 PM

3

3. Airplane tickets to Hawaii cost $500. If my mom pays for ¾ of my ticket, how much will I have to pay?

$$\frac{3}{4} \times \frac{500}{1} = \frac{1500}{4} = \$375 \text{ mom}$$

$$\begin{array}{r} \cancel{500}^{10} \\ -375 \\ \hline 125 \end{array}$$

4. A bookshelf is 72 inches wide. If I plan to place books on the shelf that average ¾ inches in width, about how many books will fit on the shelf?

$$\frac{72 \text{ shelf}}{3/4} \quad \text{C.F} \quad \frac{72}{1} \to \frac{4}{3} = \frac{288}{3} = 96 \text{ books}$$

one

$$\begin{array}{r} 096 \\ 3\overline{)288} \\ -27 \\ \hline 18 \end{array}$$

5. The width of a rectangle is 3 ½ inches, and the length is 4 ¾ inches. What is the area of the rectangle?

F

Dec 4-1:19 PM

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