Lesson 7.8

Compare Mixed Number Factors and Products

COMMON CORE STANDARDS CC.5.NF.5a, CC.5.NF.5b

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Complete the statement with equal to, greater than, or less than.

2.
$$\frac{5}{5} \times 2\frac{3}{4}$$
 will be

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

Think:
$$1 \times 1\frac{5}{8}$$
 is $1\frac{5}{8}$.
Since $\frac{2}{3}$ is less than 1, $\frac{2}{3} \times 1\frac{5}{8}$ will be less than $1\frac{5}{8}$.

5.
$$1\frac{7}{8} \times 2\frac{3}{8}$$
 will be _______ $2\frac{3}{8}$. **6.** $3\frac{4}{9} \times \frac{5}{9}$ will be _______ $3\frac{4}{9}$.

Problem Solving REAL WORLD

- 7. Fraser is making a scale drawing of a dog house. The dimensions of the drawing will be $\frac{1}{8}$ of the dimensions of the actual doghouse. The height of the actual doghouse is $36\frac{3}{4}$ inches. Will the dimensions of Fraser's drawing be equal to, greater than, or less than the dimensions of the actual dog house?
- **8.** Jorge has a recipe that calls for $2\frac{1}{3}$ cups of flour. He plans to make $1\frac{1}{2}$ times the recipe. Will the amount of flour Jorge needs be equal to, greater than, or less than the amount of flour his recipe calls for?

TEST

Lesson Check (CC.5.NF.5a, CC.5.NF.5b)

- 1. Jenna skis $2\frac{1}{4}$ miles in one hour. Her instructor skis $1\frac{1}{3}$ times as far in one hour. Which statement below is true?
 - A Jenna skis a greater distance than her instructor skis.
 - B Jenna skis a shorter distance than her instructor skis.
 - C Jenna skis the same distance as her instructor skis.
 - D Jenna skis twice the distance her instructor skis.

- 2. Suppose you multiply a fraction less than 1 by the mixed number $2\frac{3}{4}$. Which statement below will be true?
 - **(A)** The product will be equal to $2\frac{3}{4}$.
 - **B** The product will be greater than $2\frac{3}{4}$.
 - \bigcirc The product will be less than $2\frac{3}{4}$.
 - (D) You cannot make any conclusions about the product.

Spiral Review (CC.NBT.2, CC.5.NBT.7, CC.5.NF.1)

- **3.** Rectangular Washington County measures 15.9 miles by 9.1 miles. What is the county's area? (Lesson 4.7)
 - (A) 1.8 square miles
 - (B) 6.8 square miles
 - (C) 25 square miles
 - (D) 144.69 square miles

- 4. Marsha jogged 7.8 miles. Erica jogged 0.5 times as far. How far did Erica jog? (Lesson 4.7)
 - (A) 0.39 mile
 - **B** 3.9 miles
 - © 39 miles
 - (**D**) 390 miles
- 5. One cookie recipe calls for $2\frac{1}{3}$ cups of sugar. Another cookie recipe calls for $2\frac{1}{2}$ cups of sugar. Tim has 5 cups of sugar. If he bakes both recipes, how much sugar will he have left over? (Lesson 6.7)
 - A 0 cups
 - \bigcirc $\frac{1}{6}$ cup
 - \bigcirc $1\frac{1}{6}$ cups
 - \bigcirc $4\frac{5}{6}$ cups

- **6.** On Monday, it rained $1\frac{1}{4}$ inches. On Tuesday, it rained $\frac{3}{5}$ inch. How much more did it rain on Monday than on Tuesday? (Lesson 6.7)
 - \triangle $\frac{2}{20}$ inch
 - \bigcirc $\frac{3}{5}$ inch
 - \bigcirc $\frac{13}{20}$ inch
 - \bigcirc $1\frac{17}{20}$ inches