Name _____

Interpret Division with Fractions

COMMON CORE STANDARD CC.5.NF.7c

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

Write an equation to represent the problem. Then solve.

1. Daniel has a piece of wire that is $\frac{1}{2}$ yard long. He cuts the wire into 3 equal pieces. What fraction of a yard is each piece?

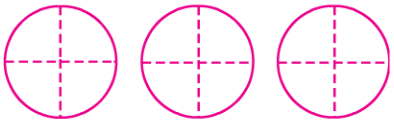
   $\frac{1}{2} \div 3 = n$; $\frac{1}{2} \times \frac{1}{3} = n$; $n = \frac{1}{6}$; $\frac{1}{6}$ yard

2. Vita has a piece of ribbon that is 5 meters long. She cuts the ribbon into pieces that are each $\frac{1}{3}$ meter long. How many pieces does she cut?

   $5 \div \frac{1}{3} = n$; $5 \times 3 = n$; $n = 15$; 15 pieces

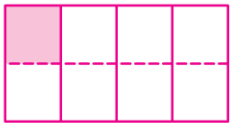
Draw a diagram to represent the problem. Then solve.

3. Leah has 3 muffins. She cuts each muffin into fourths. How many $\frac{1}{4}$-muffin pieces does she have?

   12 one-fourth-muffin pieces

4. Two friends share $\frac{1}{4}$ gallon of lemonade equally. What fraction of the gallon of lemonade does each friend get?

   $\frac{1}{8}$ gallon

5. Write a story problem to represent $3 \div \frac{1}{2}$.

   Possible problem: Joe made 3 sandwiches. He cuts each sandwich into halves. How many sandwich halves does he have?

6. Write a story problem to represent $\frac{1}{4} \div 2$.

   Possible problem: Penny has $\frac{1}{4}$ yard of ribbon. She cuts the ribbon into 2 equal pieces. How long is each piece of ribbon?

Problem Solving REAL WORLD

7. Spencer has $\frac{1}{3}$ pound of nuts. He divides the nuts equally into 4 bags. What fraction of a pound of nuts is in each bag?

   $\frac{1}{12}$ pound

8. Humma has 3 apples. She slices each apple into eighths. How many $\frac{1}{8}$-apple slices does she have?

   24 one-eighth-apple slices

TEST PREP

Lesson Check (CC.5.NF.7c)

1. Abigail has $\frac{1}{2}$ gallon of orange juice. She pours the same amount of the juice into each of 6 glasses. Which equation represents the fraction of a gallon of orange juice in each glass?

   Ⓐ $6 \div \frac{1}{2} = n$

   Ⓑ $6 \div 2 = n$

   Ⓒ $\frac{1}{2} \div \frac{1}{6} = n$

   ● $\frac{1}{2} \div 6 = n$

2. Which situation can be represented by $4 \div \frac{1}{2}$?

   Ⓐ Riley has a piece of wire that is $\frac{1}{2}$ yard long. He cuts it into fourths. How long is each piece of wire?

   ● Riley has a piece of wire that is 4 yards long. He cuts it into pieces that are $\frac{1}{2}$ yard long. How many pieces of wire does Riley have?

   Ⓒ Riley has 4 pieces of wire. Each piece is $\frac{1}{2}$ yard long. How much wire does Riley have in all?

   Ⓓ Riley has a piece of wire that is 4 yards long. He cuts it in half. How long is each piece of wire?

Spiral Review (CC.5.NF.1, CC.5.NF.3, CC.5.NF.4a, CC.5.NF.6)

3. Hannah buys $\frac{2}{3}$ pound of roast beef. She uses $\frac{1}{4}$ pound to make a sandwich for lunch. How much roast beef does she have left? **(Lesson 6.5)**

   ● $\frac{5}{12}$ pound

   Ⓑ $\frac{1}{2}$ pound

   Ⓒ $\frac{11}{12}$ pound

   Ⓓ 2 pounds

4. Alex buys $2\frac{1}{2}$ pounds of grapes. He buys $1\frac{1}{4}$ times as many pounds of apples as grapes. How many pounds of apples does Alex buy? **(Lesson 7.9)**

   Ⓐ $1\frac{1}{4}$ pounds

   ● $3\frac{1}{8}$ pounds

   Ⓒ $3\frac{1}{3}$ pounds

   Ⓓ $3\frac{3}{4}$ pounds

5. Maritza's car has 16 gallons of gas in the tank. She uses $\frac{3}{4}$ of the gas. How many gallons of gas does Maritza use? **(Lesson 7.3)**

   Ⓐ 4 gallons

   Ⓑ $5\frac{1}{4}$ gallons

   ● 12 gallons

   Ⓓ $21\frac{1}{3}$ gallons

6. Jaime has a board that is 8 feet long. He cuts the board into three equal pieces. How long is each piece? **(Lesson 8.3)**

   Ⓐ $\frac{3}{8}$ foot

   Ⓑ $1\frac{2}{3}$ feet

   ● $2\frac{2}{3}$ feet

   Ⓓ 24 feet