

Dear Family,

During the next few weeks, our math class will be learning more about fractions. We will learn how to compare fractions, order fractions, and find equivalent fractions.

You can expect to see homework that provides practice with fractions.

Here is a sample of how your child will be taught to compare fractions that have the same numerator.



### MODEL Compare Fractions with the Same Numerator

This is one way we will be comparing fractions that have the same numerator.

#### STEP 1

Compare  $\frac{4}{8}$  and  $\frac{4}{6}$ .

Look at the numerators.

Each numerator is 4.

The numerators are the same.

#### STEP 2

Since the numerators are the same, look at the denominators, 8 and 6.

The more pieces a whole is divided into, the smaller the pieces are.

Eighths are smaller pieces than sixths.

So,  $\frac{4}{8}$  is a smaller fraction of the whole than  $\frac{4}{6}$ .

$\frac{4}{8}$  is less than  $\frac{4}{6}$ .  $\frac{4}{8} < \frac{4}{6}$

## Vocabulary

**equivalent fractions** Two or more fractions that name the same amount

**greater than** ( $>$ ) A symbol used to compare two numbers, with the greater number given first

**less than** ( $<$ ) A symbol used to compare two numbers, with the lesser number given first

### Tips

#### Identifying Fewer Pieces

The fewer pieces a whole is divided into, the larger the pieces are. For example, when a whole is divided into 6 equal pieces, the pieces are larger than when the same size whole is divided into 8 equal pieces. So,  $\frac{4}{6}$  is greater than ( $>$ )  $\frac{4}{8}$ .

## Activity

Play a card game to help your child practice comparing fractions. On several cards, write a pair of fractions with the same numerator and draw a circle between the fractions. Players take turns drawing a card and telling whether *greater than* ( $>$ ) or *less than* ( $<$ ) belongs in the circle.

# Carta para la casa

Querida familia,

Durante las próximas semanas, en la clase de matemáticas aprenderemos más sobre las fracciones. Aprenderemos a comparar y ordenar fracciones, y a hallar fracciones equivalentes.

Llevaré a la casa tareas para practicar las fracciones.

Este es un ejemplo de la manera como aprenderemos a comparar fracciones que tienen el mismo numerador.

## Vocabulario

**fracciones equivalentes** Dos o más fracciones que representan la misma cantidad

**mayor que** Símbolo que se usa para comparar dos números. El número mayor se escribe primero ( $>$ ).

**menor que** Símbolo que se usa para comparar dos números. El número menor se escribe primero ( $<$ ).



### MODELO Comparar fracciones que tienen el mismo denominador

Esta es una manera como compararemos fracciones que tienen el mismo numerador.

#### Paso 1

Compara  $\frac{4}{8}$  y  $\frac{4}{6}$ .

Mira los numeradores.

Cada numerador es 4.

Los numeradores son iguales.

#### Paso 2

Dado que los numeradores son iguales, Mira los denominadores 8 y 6.

Entre más piezas se divida un entero, las piezas serán más pequeñas. Los octavos son piezas más pequeñas que los sextos.

Por lo tanto,  $\frac{4}{8}$  es una fracción menor del entero que  $\frac{4}{6}$ .

$\frac{4}{8}$  es menor que  $\frac{4}{6}$ .  $\frac{4}{8} < \frac{4}{6}$

#### Pistas

#### Identificar menos piezas

Entre menos piezas se divida un entero, las piezas serán más grandes. Por ejemplo, si un entero se divide en 6 piezas iguales, las piezas son más grandes que las piezas del mismo entero, si éste se divide en 8 piezas iguales. Por lo tanto,  $\frac{4}{6}$  es mayor que ( $>$ )  $\frac{4}{8}$ .

## Actividad

Ayude a su hijo a comparar fracciones jugando con tarjetas de fracciones. En varias tarjetas, escriba pares de fracciones con el mismo numerador y dibuje un círculo entre las fracciones. Túrnense para dibujar cada tarjeta y decir qué debe ir en el círculo: “mayor que” o “menor que.”

Name \_\_\_\_\_

**Problem Solving • Compare Fractions**



**COMMON CORE STANDARD—3.NF.3d**  
*Develop understanding of fractions as numbers.*

**Solve.**

1. Luis skates  $\frac{2}{3}$  mile from his home to school. Isabella skates  $\frac{2}{4}$  mile to get to school. Who skates farther?

**Think:** Use fraction strips to act it out.

**Luis**

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2. Sandra makes a pizza. She puts mushrooms on  $\frac{2}{8}$  of the pizza. She adds green peppers to  $\frac{5}{8}$  of the pizza. Which topping covers more of the pizza?
- 

3. The jars of paint in the art room have different amounts of paint. The green paint jar is  $\frac{4}{8}$  full. The purple paint jar is  $\frac{4}{6}$  full. Which paint jar is less full?
- 

4. Jan has a recipe for bread. She uses  $\frac{2}{3}$  cup of flour and  $\frac{1}{3}$  cup of chopped onion. Which ingredient does she use more of, flour or onion?
- 

5. Edward walked  $\frac{3}{4}$  mile from his home to the park. Then he walked  $\frac{2}{4}$  mile from the park to the library. Which distance is shorter?
-

## Lesson Check (3.NF.3d)

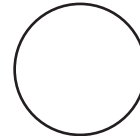
1. Ali and Jonah collect seashells in identical buckets. When they are finished, Ali's bucket is  $\frac{2}{6}$  full and Jonah's bucket is  $\frac{3}{6}$  full. Compare the fractions using  $>$ ,  $<$  or  $=$ .
2. Rosa paints a wall in her bedroom. She puts green paint on  $\frac{5}{8}$  of the wall and blue paint on  $\frac{3}{8}$  of the wall. Compare the fractions using  $>$ ,  $<$  or  $=$ .

$$\frac{3}{6} \bigcirc \frac{2}{6}$$

$$\frac{5}{8} \bigcirc \frac{3}{8}$$

## Spiral Review (3.OA.6, 3.OA.9, 3.NF.1)

3. Dan divides a pie into eighths. How many equal parts are there?
4. Draw lines to divide the circle into 4 equal parts.



5. Charles places 30 pictures on his bulletin board in 6 equal rows. How many pictures are in each row?
6. Describe the pattern in the table.

|               |   |    |    |    |    |
|---------------|---|----|----|----|----|
| <b>Tables</b> | 1 | 2  | 3  | 4  | 5  |
| <b>Chairs</b> | 5 | 10 | 15 | 20 | 25 |

Name \_\_\_\_\_

## Compare Fractions with the Same Denominator



**COMMON CORE STANDARD—3.NF.3d**  
Develop understanding of fractions as numbers.

Compare. Write  $<$ ,  $>$ , or  $=$ .

1.  $\frac{3}{4} > \frac{1}{4}$

2.  $\frac{3}{6} \bigcirc \frac{0}{6}$

3.  $\frac{1}{2} \bigcirc \frac{1}{2}$

4.  $\frac{5}{6} \bigcirc \frac{6}{6}$

5.  $\frac{7}{8} \bigcirc \frac{5}{8}$

6.  $\frac{2}{3} \bigcirc \frac{3}{3}$

7.  $\frac{8}{8} \bigcirc \frac{0}{8}$

8.  $\frac{1}{6} \bigcirc \frac{1}{6}$

9.  $\frac{3}{4} \bigcirc \frac{2}{4}$

10.  $\frac{1}{6} \bigcirc \frac{2}{6}$

11.  $\frac{1}{2} \bigcirc \frac{0}{2}$

12.  $\frac{3}{8} \bigcirc \frac{3}{8}$

13.  $\frac{1}{4} \bigcirc \frac{4}{4}$

14.  $\frac{5}{8} \bigcirc \frac{4}{8}$

15.  $\frac{4}{6} \bigcirc \frac{6}{6}$

### Problem Solving



16. Ben mowed  $\frac{5}{6}$  of his lawn in one hour. John mowed  $\frac{4}{6}$  of his lawn in one hour. Who mowed less of his lawn in one hour?

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17. Darcy baked 8 muffins. She put blueberries in  $\frac{5}{8}$  of the muffins. She put raspberries in  $\frac{3}{8}$  of the muffins. Did more muffins have blueberries or raspberries?

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## Lesson Check (3.NF.3d)

1. Julia paints  $\frac{2}{6}$  of a wall in her room white. She paints more of the wall green than white. What fraction could show the part of the wall that is green?
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2. Compare. Write  $<$ ,  $>$ , or  $=$ .

$$\frac{2}{8} \bigcirc \frac{3}{8}$$

## Spiral Review (3.OA.3, 3.OA.5, 3.OA.7, 3.NBT.3)

3. Mr. Edwards buys 2 new knobs for each of his kitchen cabinets. The kitchen has 9 cabinets. How many knobs does he buy?
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4. Allie builds a new bookcase with 8 shelves. She can put 30 books on each shelf. How many books can the bookcase hold?
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5. The Good Morning Café has 28 customers for breakfast. There are 4 people sitting at each table. How many tables are filled?
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6. Ella wants to use the Commutative Property of Multiplication to help find the product  $5 \times 4$ . What number sentence can she use?
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Name \_\_\_\_\_

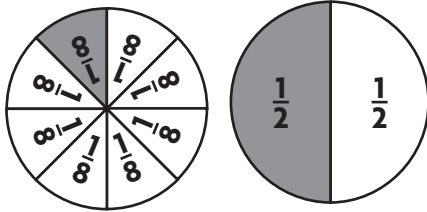
## Compare Fractions with the Same Numerator



**COMMON CORE STANDARD—3.NF.3d**  
Develop understanding of fractions as numbers.

Compare. Write  $<$ ,  $>$ , or  $=$ .

1.  $\frac{1}{8} < \frac{1}{2}$



2.  $\frac{3}{8} \bigcirc \frac{3}{6}$

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

4.  $\frac{2}{8} \bigcirc \frac{2}{3}$

5.  $\frac{3}{6} \bigcirc \frac{3}{4}$

6.  $\frac{1}{2} \bigcirc \frac{1}{6}$

7.  $\frac{5}{6} \bigcirc \frac{5}{8}$

8.  $\frac{4}{8} \bigcirc \frac{4}{8}$

9.  $\frac{6}{8} \bigcirc \frac{6}{6}$

### Problem Solving

10. Javier is buying food in the lunch line.

The tray of salad plates is  $\frac{3}{8}$  full.

The tray of fruit plates is  $\frac{3}{4}$  full.

Which tray is more full?

\_\_\_\_\_

11. Rachel bought some buttons.

Of the buttons,  $\frac{2}{4}$  are yellow and  $\frac{2}{8}$  are red. Rachel bought more of which color buttons?

\_\_\_\_\_

## Lesson Check (3.NF.3d)

1. What symbol makes the statement true? Write  $<$ ,  $>$ , or  $=$ .
2. What symbol makes the statement true? Write  $<$ ,  $>$ , or  $=$ .

$$\frac{3}{4} \bigcirc \frac{3}{8}$$

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

## Spiral Review (3.OA.7, 3.NF.1)

3. Anita divided a circle into 6 equal parts and shaded 1 of the parts. What fraction names the part she shaded?
4. What fraction names the shaded part of the rectangle?



5. Chip worked at the animal shelter for 6 hours each week for several weeks. He worked for a total of 42 hours. How many weeks did Chip work at the animal shelter?
6. Mr. Jackson has 20 quarters. If he gives 4 quarters to each of his children, how many children does Mr. Jackson have?



Name \_\_\_\_\_

## Compare Fractions



**COMMON CORE STANDARD—3.NF.3d**  
Develop an understanding of fractions as numbers.

**Compare. Write  $<$ ,  $>$ , or  $=$ . Write the strategy you used.**

1.  $\frac{3}{8} \text{ } \textcircled{<} \text{ } \frac{3}{4}$

**Think:** The numerators are the same. Compare the denominators. The greater fraction will have the lesser denominator.

same numerator

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2.  $\frac{2}{3} \text{ } \textcircled{\phantom{<}} \text{ } \frac{7}{8}$

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3.  $\frac{3}{4} \text{ } \textcircled{\phantom{<}} \text{ } \frac{1}{4}$

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**Name a fraction that is less than or greater than the given fraction. Draw to justify your answer.**

4. greater than  $\frac{1}{3}$  —

5. less than  $\frac{3}{4}$  —

### Problem Solving

6. At the third-grade party, two groups each had their own pizza. The blue group ate  $\frac{7}{8}$  pizza. The green group ate  $\frac{2}{8}$  pizza. Which group ate more of their pizza?

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7. Ben and Antonio both take the same bus to school. Ben's ride is  $\frac{7}{8}$  mile. Antonio's ride is  $\frac{3}{4}$  mile. Who has a longer bus ride?

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## Lesson Check (3.NF.3d)

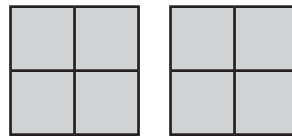
1. Compare  $\frac{2}{3}$  and  $\frac{7}{8}$ . Write  $<$ ,  $>$ , or  $=$ .
2. What symbol makes the statement true? Write  $<$ ,  $>$ , or  $=$ .

$$\frac{2}{3} \bigcirc \frac{7}{8}$$

$$\frac{2}{4} \bigcirc \frac{2}{6}$$

## Spiral Review (3.OA.4, 3.NBT.3, 3.NF.3c)

3. Cam, Stella, and Rose each picked 40 apples. They put all their apples in one crate. How many apples are in the crate?
4. Each shape is 1 whole. What fraction is represented by the shaded part of the model?



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5. What related multiplication fact can you use to find  $16 \div \blacksquare = 2$ ?
6. What is the unknown factor?  
 $9 \times \blacksquare = 36$

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Name \_\_\_\_\_

**Compare and Order Fractions****COMMON CORE STANDARD—3.NF.3d**  
*Develop understanding of fractions as numbers.***Write the fractions in order from greatest to least.**

1.  $\frac{4}{4}, \frac{1}{4}, \frac{3}{4}$   $\frac{4}{4}, \frac{3}{4}, \frac{1}{4}$

2.  $\frac{2}{8}, \frac{5}{8}, \frac{1}{8}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**Think:** The denominators are the same, so compare the numerators:  $4 > 3 > 1$ .

3.  $\frac{1}{3}, \frac{1}{6}, \frac{1}{2}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

4.  $\frac{2}{3}, \frac{2}{6}, \frac{2}{8}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**Write the fractions in order from least to greatest.**

5.  $\frac{2}{4}, \frac{4}{4}, \frac{3}{4}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

6.  $\frac{4}{6}, \frac{5}{6}, \frac{2}{6}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

7.  $\frac{7}{8}, \frac{0}{8}, \frac{3}{8}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

8.  $\frac{3}{4}, \frac{3}{6}, \frac{3}{8}$  \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**Problem Solving**

9. Mr. Jackson ran  $\frac{7}{8}$  mile on Monday. He ran  $\frac{3}{8}$  mile on Wednesday and  $\frac{5}{8}$  mile on Friday. On which day did Mr. Jackson run the shortest distance?
- \_\_\_\_\_

10. Delia has three pieces of ribbon. Her red ribbon is  $\frac{2}{4}$  foot long. Her green ribbon is  $\frac{2}{3}$  foot long. Her yellow ribbon is  $\frac{2}{6}$  foot long. She wants to use the longest piece for a project. Which color ribbon should Delia use?
- \_\_\_\_\_

## Lesson Check (3.NF.3d)

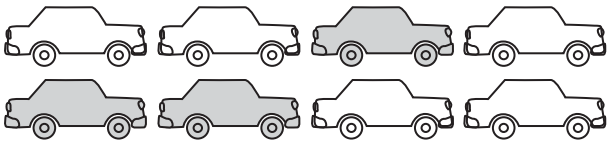
1. Write the fractions in order from least to greatest.
2. Write the fractions in order from greatest to least.

$$\frac{1}{8}, \frac{1}{3}, \frac{1}{6}$$

$$\frac{3}{6}, \frac{3}{4}, \frac{3}{8}$$

## Spiral Review (3.OA.5, 3.NF.1, 3.MD.3)

3. What fraction of the group of cars is shaded?
4. Wendy has 6 pieces of fruit. Of these, 2 pieces are bananas. What fraction of Wendy's fruit is bananas?



5. Toby collects data and makes a bar graph about his classmates' pets. He finds that 9 classmates have dogs, 2 classmates have fish, 6 classmates have cats, and 3 classmates have gerbils. What pet will have the longest bar on the bar graph?
6. The number sentence is an example of which multiplication property?  
$$6 \times 7 = (6 \times 5) + (6 \times 2)$$

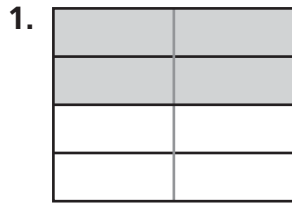
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## Model Equivalent Fractions

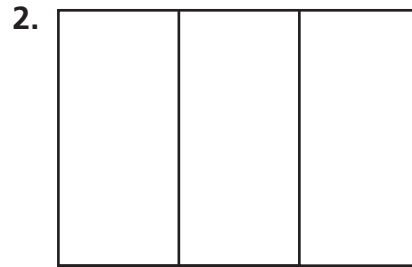


**COMMON CORE STANDARD—3.NF.3a**  
Develop understanding of fractions as numbers.

Shade the model. Then divide the pieces to find the equivalent fraction.

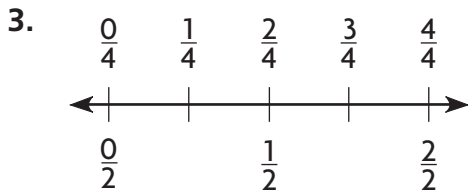


$$\frac{2}{4} = \frac{4}{8}$$

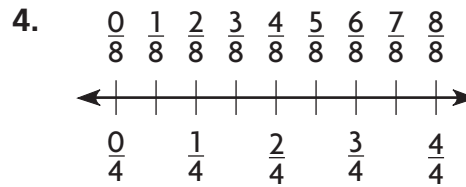


$$\frac{1}{3} = \frac{\square}{6}$$

Use the number line to find the equivalent fraction.



$$\frac{1}{2} = \frac{\square}{4}$$



$$\frac{3}{4} = \frac{\square}{8}$$

### Problem Solving

5. Mike says that  $\frac{3}{3}$  of his fraction model is shaded blue. Ryan says that  $\frac{6}{6}$  of the same model is shaded blue. Are the two fractions equivalent? If so, what is another equivalent fraction?

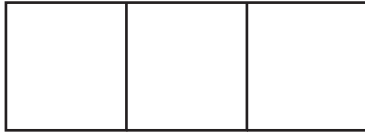
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6. Brett shaded  $\frac{4}{8}$  of a sheet of notebook paper. Aisha says he shaded  $\frac{1}{2}$  of the paper. Are the two fractions equivalent? If so, what is another equivalent fraction?

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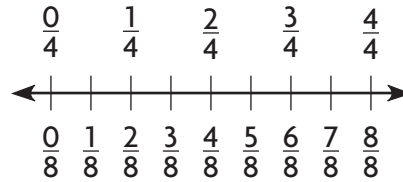
## Lesson Check (3.NF.3a)

1. Name a fraction equivalent to  $\frac{2}{3}$ .



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2. Find the fraction equivalent to  $\frac{1}{4}$ .



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## Spiral Review (3.OA.3, 3.OA.7, 3.NF.1)

3. Eric practiced piano and guitar for a total of 8 hours this week. He practiced the piano for  $\frac{1}{4}$  of that time. How many hours did Eric practice the piano this week?

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4. Kylee bought a pack of 12 cookies. One-third of the cookies are peanut butter. How many of the cookies in the pack are peanut butter?

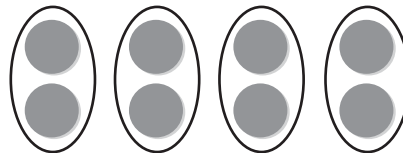
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5. There are 56 students going to the game. The coach puts 7 students in each van. How many vans are needed to take the students to the game?

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6. Write a division equation for the picture.



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Name \_\_\_\_\_

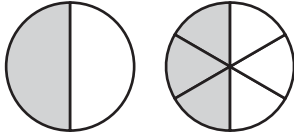
## Equivalent Fractions



**COMMON CORE STANDARD—3.NF.3b**  
Develop understanding of fractions as numbers.

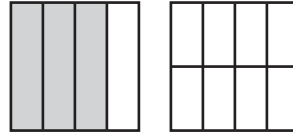
Each shape is 1 whole. Shade the model to find the equivalent fraction.

1.



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

2.



$$\frac{3}{4} = \frac{6}{8}$$

Circle equal groups to find the equivalent fraction.

3.



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

4.



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

### Problem Solving

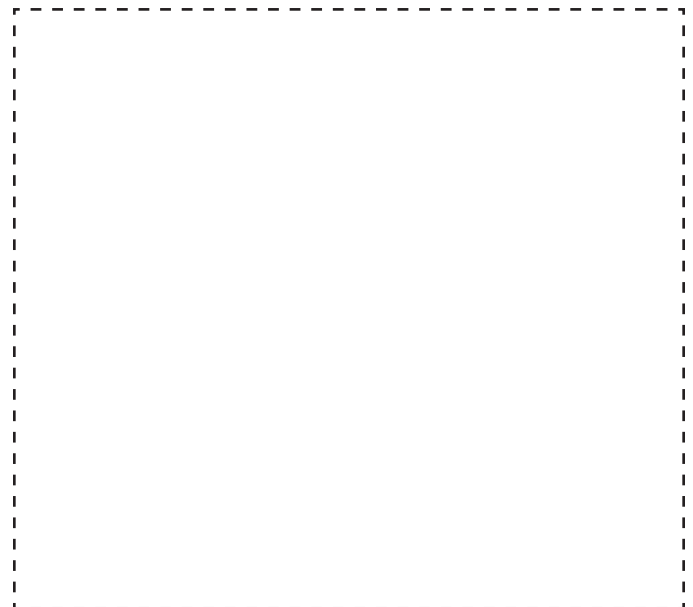


5. May painted 4 out of 8 equal parts of a poster board blue. Jared painted 2 out of 4 equal parts of a same-size poster board red. Write fractions to show which part of the poster board each person painted.

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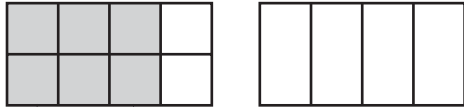
6. Are the fractions equivalent? Draw a model to explain.

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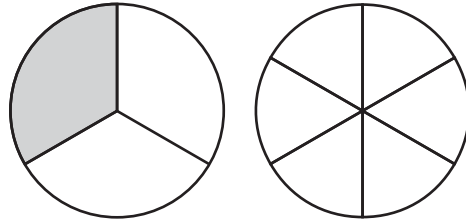
## Lesson Check (3.NF.3b)

1. What fraction is equivalent to  $\frac{6}{8}$ ?



\_\_\_\_\_

2. What fraction is equivalent to  $\frac{1}{3}$ ?



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## Spiral Review (3.OA.5, 3.OA.6, 3.OA.7)

3. What division number sentence is shown by the array?



\_\_\_\_\_  
\_\_\_\_\_

4. Cody put 4 plates on the table. He put 1 apple on each plate. What number sentence can be used to find the total number of apples on the table?

\_\_\_\_\_  
\_\_\_\_\_

5. Write a division number sentence that is a related fact to  $7 \times 3 = 21$ .

\_\_\_\_\_  
\_\_\_\_\_

6. Find the quotient.

$$4 \overline{)36}$$

\_\_\_\_\_  
\_\_\_\_\_