

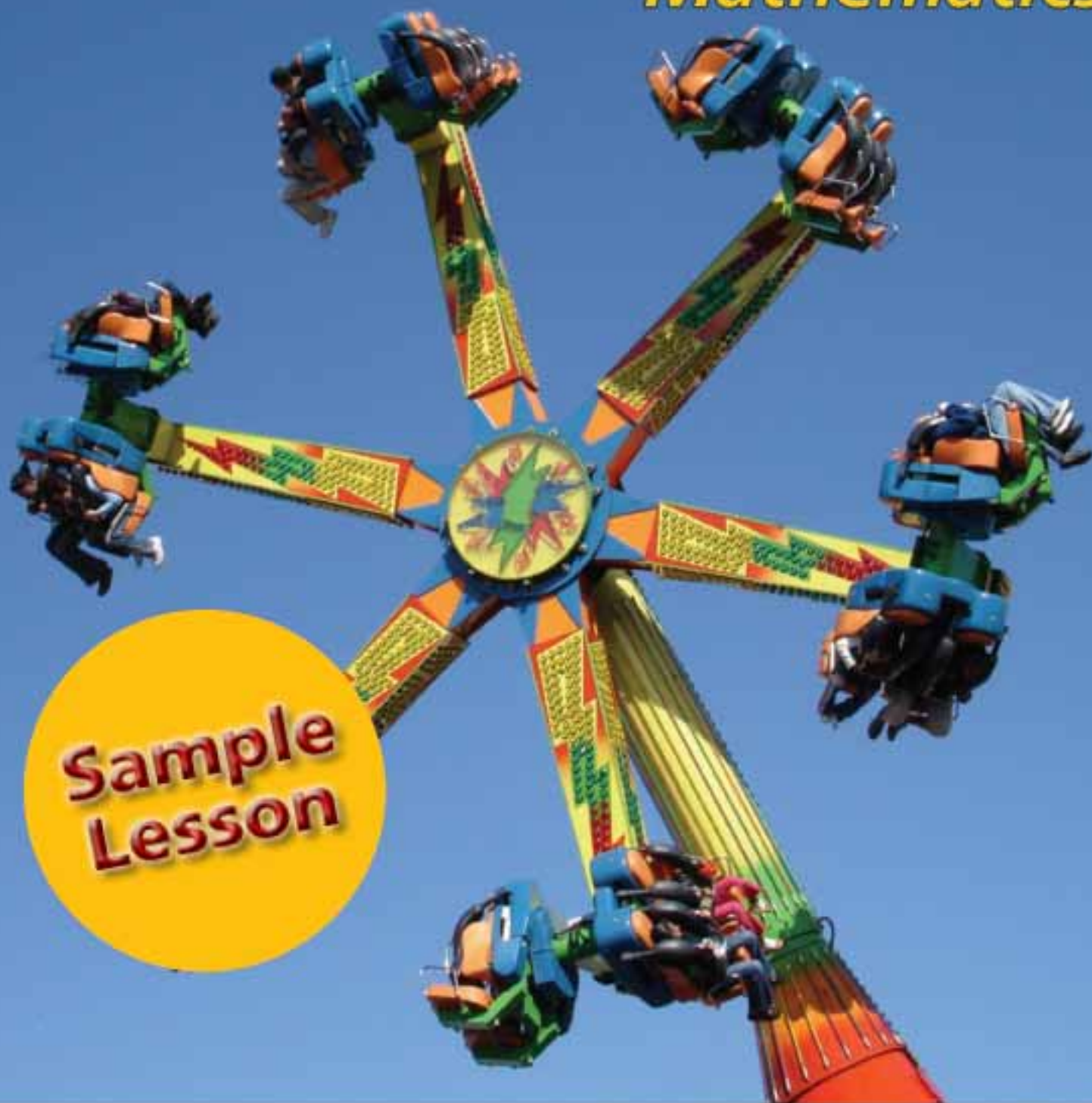


GRADE

3

# New York State

## *Mathematics*



**Sample  
Lesson**

Continental Press

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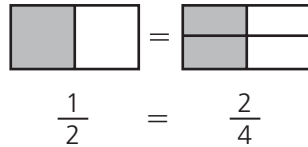
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# Comparing and Ordering Fractions

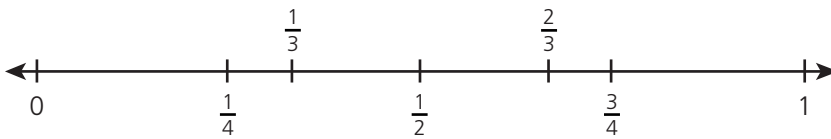
Indicators 3.N.14, 15

✔ **Equivalent fractions** name the same number in different terms.

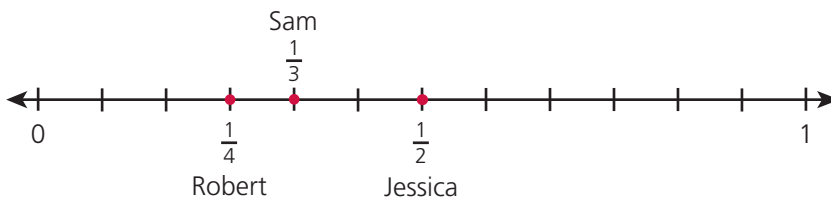


The fractions  $\frac{1}{2}$  and  $\frac{2}{4}$  are equivalent.

✔ Fractions can be shown on a number line. This number line shows halves, thirds, and fourths.



Jessica, Sam, and Robert studied for a test. Jessica studied for  $\frac{1}{2}$  hour, Sam studied for  $\frac{1}{3}$  an hour, and Robert studied for  $\frac{1}{4}$  an hour. Who studied the most? Who studied the least?



Find  $\frac{1}{2}$  hour on the number line and make a dot on it. Do the same for  $\frac{1}{3}$  and  $\frac{1}{4}$ . Then compare the fractions. The fraction  $\frac{1}{2}$  is to the right of  $\frac{1}{3}$  and  $\frac{1}{4}$ . So it is the largest fraction. The fraction  $\frac{1}{4}$  is to the left of  $\frac{1}{3}$  and  $\frac{1}{2}$ . So it is the smallest fraction.

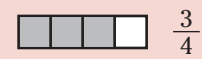
Jessica studied the most, and Robert studied the least.

**Remember—**

A **fraction** can name part of a group or set.



A fraction can also name part of a whole.



The **numerator** and **denominator** are the **terms** of a fraction.

$\frac{1}{4}$  ← Numerator  
4 ← Denominator

When a fraction is in **lowest terms**, it cannot be made simpler.

When the numerator and denominator are the same digit, the fraction is equal to 1.

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

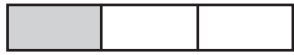
$$\frac{8}{8} = 1$$

Numbers on the left of a number line are **always** smaller than numbers on the right.



Read each problem. Circle the letter of the best answer.

1 Look at this picture.



Which figure shows an equivalent fraction?



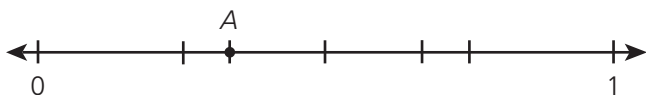
The correct answer is C. The rectangle is divided into three equal parts, and 1 part is shaded. So it shows the fraction  $\frac{1}{3}$ . Figure A shows  $\frac{2}{3}$ , figure B shows  $\frac{3}{3}$ , figure C shows  $\frac{2}{6}$ , and figure D shows  $\frac{3}{6}$ . Only the fraction  $\frac{2}{6}$  is equivalent to  $\frac{1}{3}$ .

2 An apple pie was cut into four pieces. Sadie ate 2 pieces. What fraction of the pie did she eat?

**A**  $\frac{1}{2}$                       **C**  $\frac{1}{4}$

**B**  $\frac{1}{3}$                       **D**  $\frac{1}{6}$

3 What fraction does point A show on this number line?



**A**  $\frac{1}{2}$                       **C**  $\frac{2}{3}$

**B**  $\frac{1}{3}$                       **D**  $\frac{1}{6}$

4 Melissa finished  $\frac{1}{2}$  of her project, Sydney finished  $\frac{2}{3}$  of her project, Jaren finished  $\frac{3}{6}$ , and Marc finished  $\frac{3}{4}$  of his project. Which two friends finished the same amount of their projects?

**A** Melissa and Marc

**B** Sydney and Jaren

**C** Melissa and Jaren

**D** Sydney and Marc

5 Sam mowed  $\frac{2}{6}$  of the backyard. What fraction equals  $\frac{2}{6}$ ?

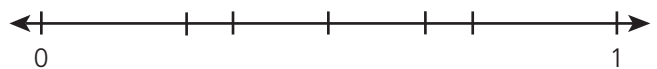
**A**  $\frac{1}{2}$

**C**  $\frac{2}{3}$

**B**  $\frac{1}{3}$

**D**  $\frac{3}{4}$

6 Use this number line to answer the question.



Which choice shows the fractions in order from least to greatest?

**A**  $\frac{1}{3}, \frac{1}{2}, \frac{1}{4}$

**B**  $\frac{1}{4}, \frac{1}{3}, \frac{1}{2}$

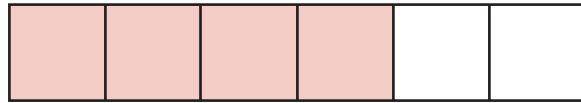
**C**  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

**D**  $\frac{1}{4}, \frac{1}{2}, \frac{1}{3}$



Read each problem. Write your answers.

7 Look at the figure below.



**Part A**

What fraction does the figure show?

**Answer:**  $\frac{4}{6}$

**Part B**

Complete the figure below to show an equivalent fraction in thirds.



Name the equivalent fraction.

**Answer:**  $\frac{2}{3}$

The figure at the top has 4 out of 6 blocks shaded, so it shows  $\frac{4}{6}$ . The box above has 3 sections. You know that  $\frac{2}{6} = \frac{1}{3}$  so shade two of the sections to show  $\frac{2}{3}$ . The fraction  $\frac{4}{6}$  is equivalent to  $\frac{2}{3}$  in lowest terms.

8 Dwight spends  $\frac{1}{4}$  of his allowance on games. He spends  $\frac{1}{3}$  on snacks and another  $\frac{1}{3}$  on music. He saves the rest.

**Part A**

Does Dwight spend more money on games or snacks?

**Answer:** \_\_\_\_\_

**Part B**

Explain how you found your answer.

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Read the problem. Write your answer for each part.

- 9 Three friends have equal size patches to plant a garden. Jonathon planted  $\frac{1}{4}$  of his garden on Saturday. Karen planted  $\frac{1}{2}$  of her garden, and Jose planted  $\frac{1}{3}$  of his garden.

**Part A**

Mark and label the fraction each person planted on the number line below.

**Ask Yourself**

How many equal parts are in halves, in thirds, and in fourths?



**Part B**

Explain how you knew where to put your marks.

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**Part C**

Who planted the least amount of garden?

**Answer:** \_\_\_\_\_

