Go to *Grade 3 Everyday Mathematics* Sample Lesson

8•7 Fractions Greater Than ONE

Objective To demonstrate naming quantities greater than 1 with fractions and mixed numbers.

1 Teaching the Lesson

Key Activities

Children model fractions greater than 1 and equivalent mixed numbers by pasting fractional parts of a unit circle onto unit circles. They practice naming numbers of fractional parts as fractions and mixed numbers.

Key Concepts and Skills

- Shade fractional parts of regions to represent fractions greater than 1. [Number and Numeration Goal 2]
- Model and name mixed numbers and fractions. [Number and Numeration Goal 2]
- Identify equivalent fractions. [Number and Numeration Goal 5]
- Use lines of symmetry to divide figures into equal parts. [Geometry Goal 3]

Key Vocabulary mixed number

Ongoing Assessment: Informing Instruction See page 685.

materials

- ☐ *Math Journal 2,* pp. 197 and 198
- ☐ Home Link 8•6
- ☐ Teaching Aid Master (*Math Masters,* p. 436; one copy per 3 children)
- ☐ scissors
- ☐ glue or paste
- ☐ slates
- ☐ crayons

***See* Advance Preparation**

2 Ongoing Learning & Practice

Children play the *Equivalent Fractions Game.*

Children practice and maintain skills through Math Boxes and Home Link activities.

Ongoing Assessment: Recognizing Student Achievement Use the Record Sheet. [Number and Numeration Goal 5]

materials

- ☐ *Math Journal 2,* p. 199
- ☐ *Student Reference Book,* pp. 283 and 284
- ☐ Home Link Masters (*Math Masters,* pp. 258 and 259)
- ☐ Fraction Cards; half-sheets of paper

3 Differentiation Options

READINESS

Children use pattern blocks to compare fractions of regions to one whole.

ENRICHMENT

Children write fractions on a number line.

EXTRA PRACTICE

Children play *Fraction Top-It.*

ELL SUPPORT

Children add the term *mixed number* to their Math Word Banks.

materials

- ☐ *Student Reference Book,* pp. 287 and 288
- ☐ Teaching Masters (*Math Masters,* pp. 260 and 261)
- ☐ *Differentiation Handbook*
- ☐ pattern blocks; half-sheets of paper; Pattern-Block Template
- ☐ Fraction Cards

Additional Information

Advance Preparation Make enough copies of *Math Masters,* page 436 so each child can have one strip of 4 circles. Cut the strips apart and place them next to the Math Message.

Technology

Assessment Management System
Game Record Sheet
See the **iTLG.**

Getting Started

Mental Math and Reflexes

Dictate pairs of decimals. Children write them on their slates and circle the larger number. *Suggestions:*

- ●○○ twenty-seven hundredths; sixty-seven hundredths 0.27; 0.67
- ●●○ five-tenths; five-hundredths 0.5; 0.05 three and six-tenths; three and sixteen-hundredths 3.6; 3.16
- ●●● seventy-two hundredths; nine-tenths 0.72; 0.9 forty and eighty-three hundredths; forty-eight and three tenths 40.83; 48.3

Math Message

1. *Take a strip and cut out the 4 circles.*
2. *How would you answer the following problems?*
   - ▷ Emily had 3 apples. She cut one in half and ate one of the halves. How many apples were left?
   - ▷ Then she cut each of the other whole apples in half. She gave all the half-apples to her friends. How many half-apples did she give away?

Home Link 8•6 Follow-Up

Have partners share their answers for Problems 11–14. Ask a few volunteers to share their solution strategies with the class.

1 Teaching the Lesson

Math Message Follow-Up

WHOLE-CLASS ACTIVITY

(*Math Masters,* p. 436)

Illustrate the number story in the Math Message on the board.

- Emily had 3 apples. She cut one in half and ate one of the halves. How many apples were left?

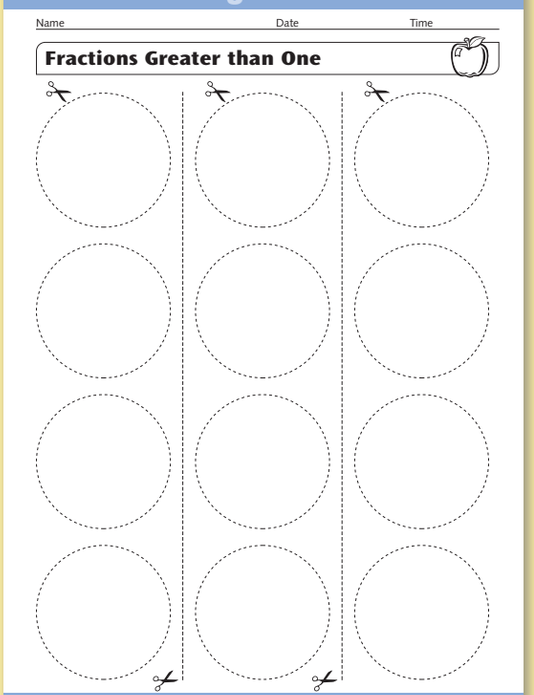
$2\frac{1}{2}$ apples

- Then she cut each of the other whole apples in half. She gave all of the half-apples to her friends. How many half-apples did she give away?

Five halves of apples

Write $2\frac{1}{2}$ and $\frac{5}{2}$ on the board. Ask: *Do these numbers—$2\frac{1}{2}$ and $\frac{5}{2}$—name equivalent amounts of apples?* Yes

Teaching Aid Master



Math Masters, p. 436

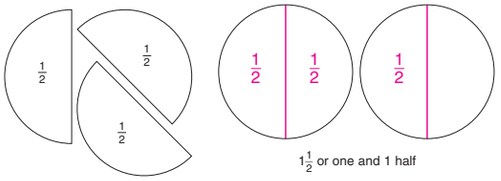
Student Page

Date Time

LESSON 8•7 **More Than ONE**

Use the circles that you cut out for the Math Message.

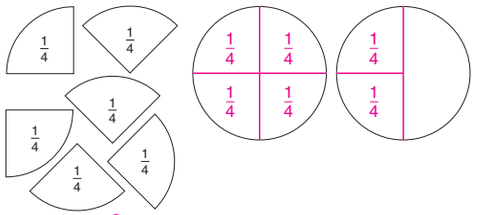
1. Glue 3 halves into the two whole circles.



3 halves or $\frac{3}{2}$

$1\frac{1}{2}$ or one and 1 half

2. Glue 6 fourths into the two whole circles. Fill in the missing digits in the question, the fraction, and the mixed number.



How many fourths? 6 fourths

Write the fraction: $\frac{6}{4}$

Write the mixed number: $1\frac{2}{4}$

***Math Journal 2*, p. 197**

Naming Fractional Parts Greater Than ONE

WHOLE-CLASS ACTIVITY

(*Math Journal 2,* p. 197; *Math Masters,* p. 436)

First, ask children to take two of the circles they cut out and fold them in half. Write $\frac{1}{2}$ on each half, and then cut each circle along the fold line. Have the class count halves while you write the fractions on the board: *one half* $\frac{1}{2}$ *two halves* $\frac{2}{2}$ *three halves,* STOP.

Ask: *How would you write a fraction that names three halves?* $\frac{3}{2}$ *How is this fraction different from the fractions you have used so far?* The numerator is greater than the denominator.

Draw two pairs of circles on the board. In one pair, divide both circles in half and shade three of the halves. Label the picture $\frac{3}{2}$. In the second pair, divide only one circle in half. Shade one of the halves and the complete circle. Label the picture $1\frac{1}{2}$. Ask children to compare the two pictures. The same amount of space is shaded.

Continue counting: *four halves.* Ask: *What fraction names four halves?* $\frac{4}{2}$

Next, have children paste three of the halves inside the two circles in Problem 1 on journal page 197. Point out that because each circle is ONE, or 1 *whole,* $\frac{3}{2}$ is $\frac{1}{2}$ more than 1, and can be written as $1\frac{1}{2}$. Emphasize that $\frac{3}{2}$ and $1\frac{1}{2}$ are equivalent names and represent the same amount. Write $1\frac{1}{2}$ on the board and explain that the number $1\frac{1}{2}$ is called a **mixed number** because it is made up of a whole number and a fraction.

Ask children to fold the other two circles into four equal parts: Write $\frac{1}{4}$ in each part and cut each circle along the fold lines. Have children glue six of the fourth pieces inside the two remaining circles (in Problem 2) on the journal page. Then they write a fraction that names the six pieces $\frac{6}{4}$ or $\frac{3}{2}$ and a mixed number that names the six pieces $1\frac{2}{4}$ or $1\frac{1}{2}$.

If no one wrote $\frac{3}{2}$ or $1\frac{1}{2}$, ask the class to compare the two pairs of circles for 3 halves and 6 fourths. Ask: *Why is* $\frac{6}{4}$ *equivalent to* $\frac{3}{2}$*? Why is* $1\frac{2}{4}$ *equivalent to* $1\frac{1}{2}$*?* Both name the same amount of circles.

Adjusting the Activity

Ask children whether they can think of ways to name all four circles with a fraction. They can probably come up with equivalent halves ($\frac{8}{2}$) and fourths ($\frac{16}{4}$). Encourage them to try other denominators—$\frac{12}{3}$, $\frac{20}{5}$, and so on. If no one suggests it, ask about $\frac{4}{1}$. Remind them that the number on the bottom of the fraction tells into how many parts the whole has been divided. If the circles are not divided, the denominator is 1. Since there are 4 undivided circles, 4 is the number in the numerator. Also ask whether they can think of an equivalent mixed number, such as $3\frac{4}{4}$ or $2\frac{4}{2}$.

AUDITORY ◆ KINESTHETIC ◆ TACTILE ◆ VISUAL

Ongoing Assessment: Informing Instruction

Watch for children who have difficulty writing mixed numbers. Write them on the board as you say them to provide a visual reference for children.

Links to the Future

The activities in this lesson expose children to the concept of naming fractional parts greater than one as fractions and mixed numbers. Converting between fractions and mixed numbers is a Grade 5 Goal.

Naming Parts with Fractions and Mixed Numbers

PARTNER ACTIVITY

(*Math Journal 2,* p. 198)

You may want to do Problem 3 with the class to make sure children know what is expected. They color a given number of fractional parts of circles and use the resulting diagrams to name them with a fraction and a mixed number. Note that the answer to Problem 6 is a mixed number greater than 2.

2 Ongoing Learning & Practice

Playing the *Equivalent Fractions Game*

PARTNER ACTIVITY

(*Student Reference Book,* pp. 283 and 284)

The game was introduced in Lesson 8-5. If necessary, children can read the rules for the *Equivalent Fractions Game* in the *Student Reference Book* on pages 283 and 284. Have children record equivalent fraction pairs they make on a Record Sheet made from a half-sheet of paper. Remind them to write an = symbol between equivalent fractions.

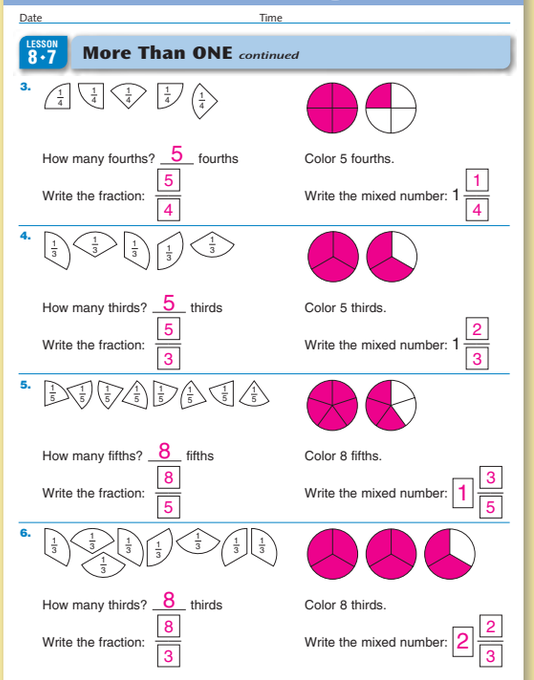
Ongoing Assessment: Recognizing Student Achievement

Record Sheet ★

Use the **Record Sheet** to assess children's progress toward using Fraction Cards to find equivalent fractions. Children are making adequate progress if they record at least 2 pairs. Some children may be able to identify equivalent fractions without using the shaded sides of the cards.

[Number and Numeration Goal 5]

Student Page


Date Time

LESSON 8•7 More Than ONE *continued*

3. How many fourths? 5 fourths
Write the fraction: 5/4
Color 5 fourths.
Write the mixed number: 1 1/4

4. How many thirds? 5 thirds
Write the fraction: 5/3
Color 5 thirds.
Write the mixed number: 1 2/3

5. How many fifths? 8 fifths
Write the fraction: 8/5
Color 8 fifths.
Write the mixed number: 1 3/5

6. How many thirds? 8 thirds
Write the fraction: 8/3
Color 8 thirds.
Write the mixed number: 2 2/3

***Math Journal 2,* p. 198**

Student Page

Date Time

LESSON 8•7 **Math Boxes**

1. In the number 56.714:
the 7 means 7 tenths
the 6 means 6 ones
the 4 means 4 thousandths
the 5 means 5 tens
the 1 means 1 hundredth

2. On which color is the spinner most likely to land? green
Least likely to land? red

3. Circle the fractions that are equivalent to $\frac{1}{3}$.
$\frac{1}{8}$ $\frac{2}{6}$ $\frac{4}{12}$
$\frac{6}{9}$ $\frac{5}{15}$ $\frac{3}{9}$

4. Use a straightedge. Draw the other half of the symmetric shape.

5. Share $3.75 equally among 3 people.
Each person gets $ 1.25.
Share $10.00 equally among 4 people.
Each person gets $ 2.50.

6. Solve.
6 × 8 = 48
9 × 9 = 81
7 × 7 = 49
72 = 8 × 9
32 = 4 × 8

Math Journal 2, p. 199

Math Boxes 8•7

INDEPENDENT ACTIVITY

(*Math Journal 2,* p. 199)

Mixed Practice Math Boxes in this lesson are paired with Math Boxes in Lesson 8-5. The skill in Problem 6 previews Unit 9 content.

Portfolio Ideas

Writing/Reasoning Have children write an answer to the following: *In Problem 5, what does* share equally *mean?* Sample answer: *Share equally* means to divide an amount or a group of things into equal parts. In Problem 5, each person gets an equal amount.

Home Link 8•7

INDEPENDENT ACTIVITY

(*Math Masters,* pp. 258 and 259)

Home Connection Children color figures according to directions and then write fractions and mixed numbers to describe those pictures.

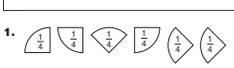
Home Link Master

Name Date Time

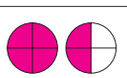
HOME LINK 8•7 **Fractions and Mixed Numbers**

Family Note Today the class began looking at fractions greater than 1 and mixed numbers. We have been working with region or area models (shaded areas) for these numbers. Problem 5 asks about fractions of a set. The *whole* is a dozen eggs, so each egg is $\frac{1}{12}$ of the whole. Have your child explain how he or she figured out what the fraction and mixed number should be for the egg-carton drawings.

Please return this Home Link to school tomorrow.

1. 

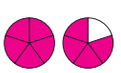
How many fourths? 6 fourths
Write the fraction: $\frac{6}{4}$



Color 6 fourths.
Write the mixed number: $1\frac{2}{4}$ or $1\frac{1}{2}$

2. 

How many fifths? 9 fifths
Write the fraction: $\frac{9}{5}$



Color 9 fifths.
Write the mixed number: $1\frac{4}{5}$

3. 

How many thirds? 7 thirds
Write the fraction: $\frac{7}{3}$

Color 7 thirds.
Write the mixed number: $2\frac{1}{3}$

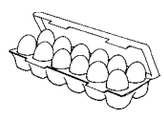
Math Masters, p. 258

Home Link Master

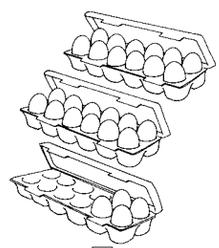
Name Date Time

HOME LINK 8•7 **Fractions and Mixed Numbers** *cont.*

Try This

4. 

What fraction of the WHOLE carton is each egg? $\frac{1}{12}$

5. 

Write the fraction: $\frac{28}{12}$
Write the fraction as a mixed number: 2 $\frac{4}{12}$ or $2\frac{1}{3}$

Practice

Write these problems on the back of this page. Solve and show your work.

6.	7.	8.	9.
301 − 288 = 13	27 + 19 = 46	600 − 476 = 124	131 + 99 = 230

Math Masters, p. 259

3 Differentiation Options

READINESS

INDEPENDENT ACTIVITY

5–15 Min

Modeling Fractions of Regions Larger than One Whole

(*Math Masters,* p. 260)

To provide experience with comparing fractions of regions to the WHOLE, have children build the shapes on *Math Masters,* page 260 with pattern blocks.

ENRICHMENT

INDEPENDENT ACTIVITY

5–15 Min

Placing Fractions on a Number Line

(*Math Masters,* p. 261)

To apply children's understanding of mixed numbers, have them identify and locate numbers between consecutive whole numbers on a number line. Have children discuss how they decided where to place their fractions on the number lines.

EXTRA PRACTICE

PARTNER ACTIVITY

5–15 Min

Playing *Fraction Top-It*

(*Student Reference Book,* pp. 287 and 288)

To provide practice with comparing fractions, have children play *Fraction Top-It,* which was introduced in Lesson 8-6. Children may play the advanced version of the game. If necessary, they can read the rules for both versions of *Fraction Top-It* in the *Student Reference Book* on pages 287 and 288.

ELL SUPPORT

SMALL-GROUP ACTIVITY

5–15 Min

Building a Math Word Bank

(*Differentiation Handbook*)

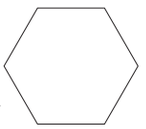
To provide language support for fractions, have children use the Word Bank template found in the *Differentiation Handbook.* Ask children to write the term *mixed number,* draw a picture representing the term, and write other related words. See the *Differentiation Handbook* for more information.

Teaching Master

Name Date Time

LESSON 8•7 **Comparing Figures**

Use only triangles, rhombuses, trapezoids, and hexagons from your pattern blocks to solve the problems below.

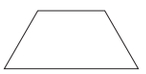


1. One hexagon is the WHOLE. Cover the WHOLE with triangles.
   How many triangles fit in the whole hexagon? 6

   Use your pattern blocks to build a figure that is greater than one WHOLE. Use your Pattern-Block Template to draw your figure below.

   Cover your new drawing with triangles. How many triangles fit in your figure? Answers vary.

2. One trapezoid is the WHOLE. Cover the WHOLE with triangles.
   How many triangles fit in the whole trapezoid? 3



   Use your pattern blocks to build a figure that is greater than one WHOLE. Use your Pattern-Block Template to draw your figure below.

   Cover your new drawing with triangles. How many triangles is your figure worth? Answers vary.

***Math Masters,* p. 260**

Teaching Master

Name Date Time

LESSON 8•7 **Fractions on a Number Line**

1. Identify at least 3 fractions that are between 80 and 81. On a half-sheet of paper, record your fractions as mixed numbers and as fractions. Then place them on the number line below.

2. Identify at least 3 fractions that are between 2 and 5. On a half-sheet of paper, record your fractions as mixed numbers and as fractions. Then place them on the number line below.

***Math Masters,* p. 261**

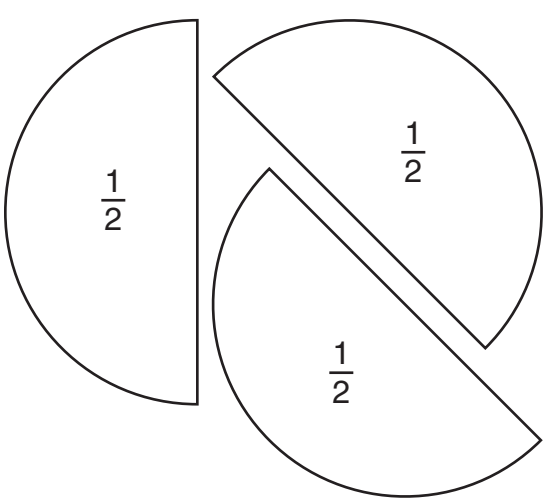
LESSON 8•7

More Than ONE

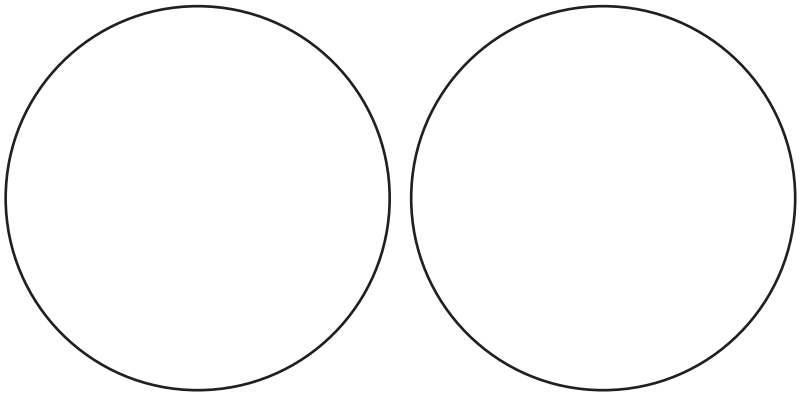
back to lesson

Use the circles that you cut out for the Math Message.

1. Glue 3 halves into the two whole circles.

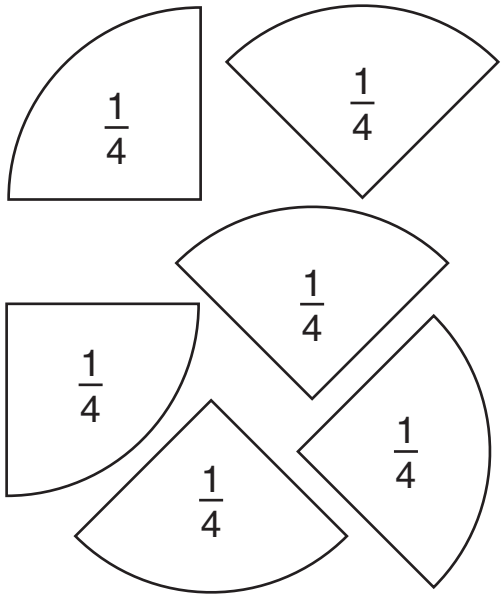


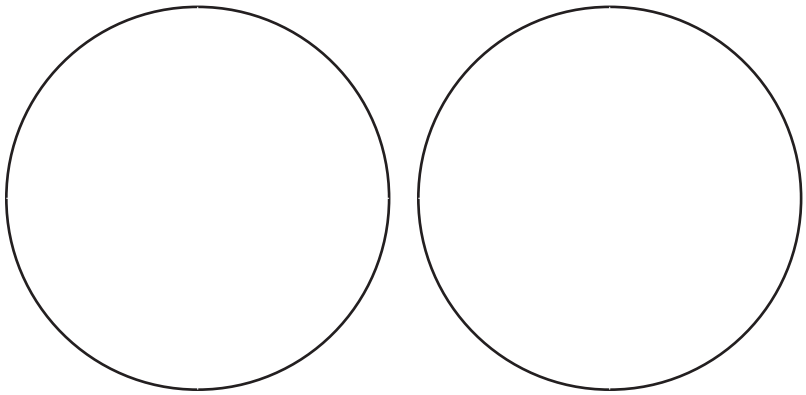
3 halves or $\frac{3}{2}$



$1\frac{1}{2}$ or one and 1 half

2. Glue 6 fourths into the two whole circles. Fill in the missing digits in the question, the fraction, and the mixed number.





How many fourths? _____ fourths

Write the fraction: $\frac{\square}{\square}$

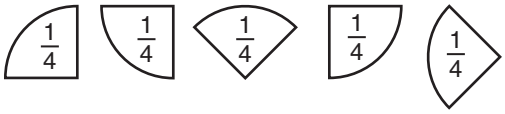
Write the mixed number: 1 $\frac{\square}{\square}$

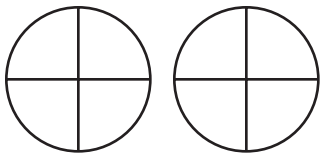
LESSON 8•7

More Than ONE *continued*

back to lesson

3.





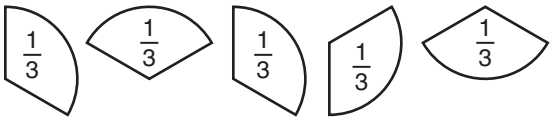
How many fourths? _____ fourths

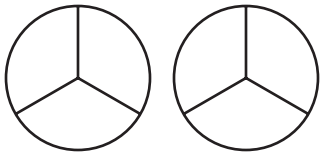
Color 5 fourths.

Write the fraction: $\frac{\square}{\square}$

Write the mixed number: $1\frac{\square}{\square}$

4.





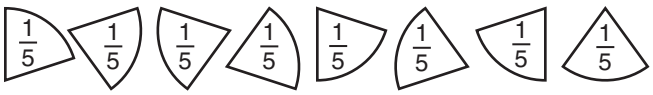
How many thirds? _____ thirds

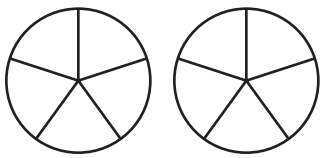
Color 5 thirds.

Write the fraction: $\frac{\square}{\square}$

Write the mixed number: $1\frac{\square}{\square}$

5.





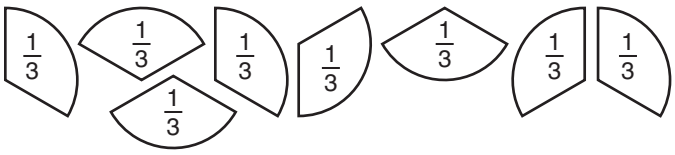
How many fifths? _____ fifths

Color 8 fifths.

Write the fraction: $\frac{\square}{\square}$

Write the mixed number: $\square\frac{\square}{\square}$

6.



How many thirds? _____ thirds

Color 8 thirds.

Write the fraction: $\frac{\square}{\square}$

Write the mixed number: $\square\frac{\square}{\square}$

Date Time

LESSON 8•7

Math Boxes

back to lesson

1. In the number 56.714:

the 7 means 7 tenths

the 6 means _____

the 4 means _____

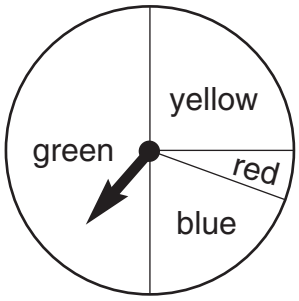
the 5 means _____

the 1 means _____

SRB 35

2. On which color is the spinner most likely to land? _____

Least likely to land? _____



SRB 92 93

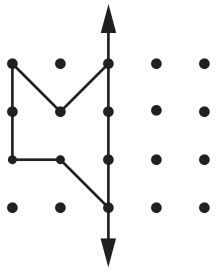
3. Circle the fractions that are equivalent to $\frac{1}{3}$.

$\frac{1}{8}$ $\frac{2}{6}$ $\frac{4}{12}$

$\frac{6}{9}$ $\frac{5}{15}$ $\frac{3}{9}$

SRB 30

4. Use a straightedge. Draw the other half of the symmetric shape.



SRB 122 123

5. Share $3.75 equally among 3 people.

Each person gets $_____.

Share $10.00 equally among 4 people.

Each person gets $_____.

6. Solve.

$6 \times 8 =$ _____

$9 \times 9 =$ _____

$7 \times 7 =$ _____

_____ $= 8 \times 9$

_____ $= 4 \times 8$

SRB 52 53

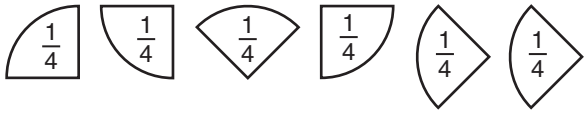
Name Date Time

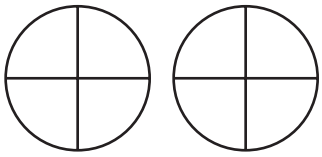
HOME LINK 8•7

Fractions and Mixed Numbers

Family Note Today the class began looking at fractions greater than 1 and mixed numbers. We have been working with region or area models (shaded areas) for these numbers. Problem 5 asks about fractions of a set. The *whole* is a dozen eggs, so each egg is $\frac{1}{12}$ of the whole. Have your child explain how he or she figured out what the fraction and mixed number should be for the egg-carton drawings.

Please return this Home Link to school tomorrow.

1. 

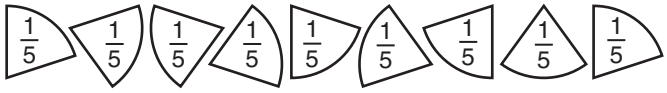


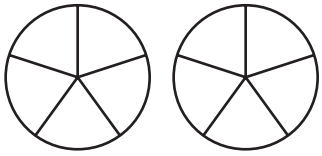
How many fourths? _____ fourths

Color 6 fourths.

Write the fraction: _____

Write the mixed number: _____

2. 

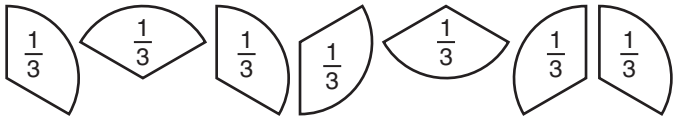


How many fifths? _____ fifths

Color 9 fifths.

Write the fraction: _____

Write the mixed number: _____

3. 

How many thirds? _____ thirds

Color 7 thirds.

Write the fraction: _____

Write the mixed number: _____

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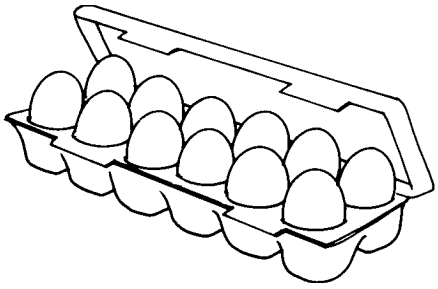
Fractions and Mixed Numbers *cont.*

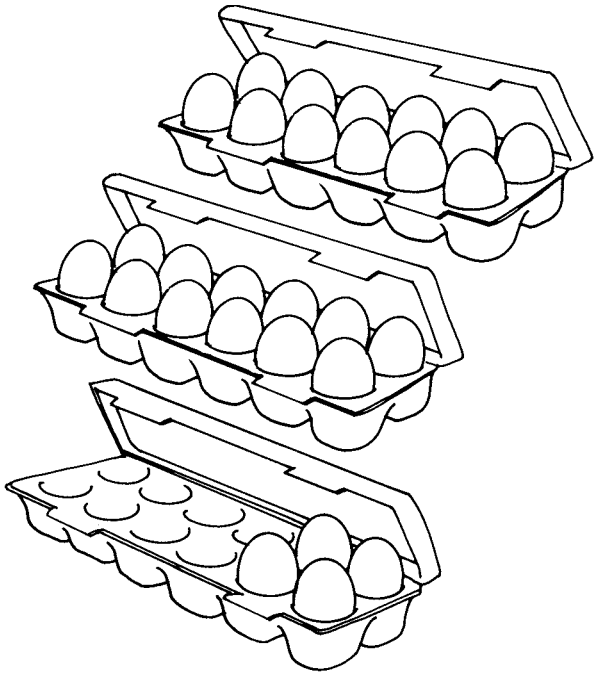
Try This

4.



What fraction of the WHOLE carton is each egg? $\frac{\square}{12}$

5.



Write the fraction: $\frac{\square}{12}$

Write the fraction as a mixed number: $\square$ $\frac{\square}{12}$

Practice

Write these problems on the back of this page. Solve and show your work.

6. 301 − 288

7. 27 + 19

8. 600 − 476

9. 131 + 99

Name Date Time

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Comparing Figures

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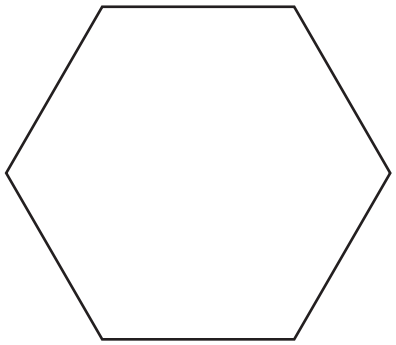
Use only triangles, rhombuses, trapezoids, and hexagons from your pattern blocks to solve the problems below.



1. One hexagon is the WHOLE. Cover the WHOLE with triangles.

How many triangles fit in the whole hexagon? _____

Use your pattern blocks to build a figure that is greater than one WHOLE. Use your Pattern-Block Template to draw your figure below.

Cover your new drawing with triangles. How many triangles fit in your figure? _____

2. One trapezoid is the WHOLE. Cover the WHOLE with triangles.

How many triangles fit in the whole trapezoid? _____

Use your pattern blocks to build a figure that is greater than one WHOLE. Use your Pattern-Block Template to draw your figure below.

Cover your new drawing with triangles. How many triangles is your figure worth? _____

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Name Date Time

LESSON 8•7

Fractions on a Number Line

1. Identify at least 3 fractions that are between 80 and 81. On a half-sheet of paper, record your fractions as mixed numbers and as fractions. Then place them on the number line below.

2. Identify at least 3 fractions that are between 2 and 5. On a half-sheet of paper, record your fractions as mixed numbers and as fractions. Then place them on the number line below.

Name Date Time

Fractions Greater than One

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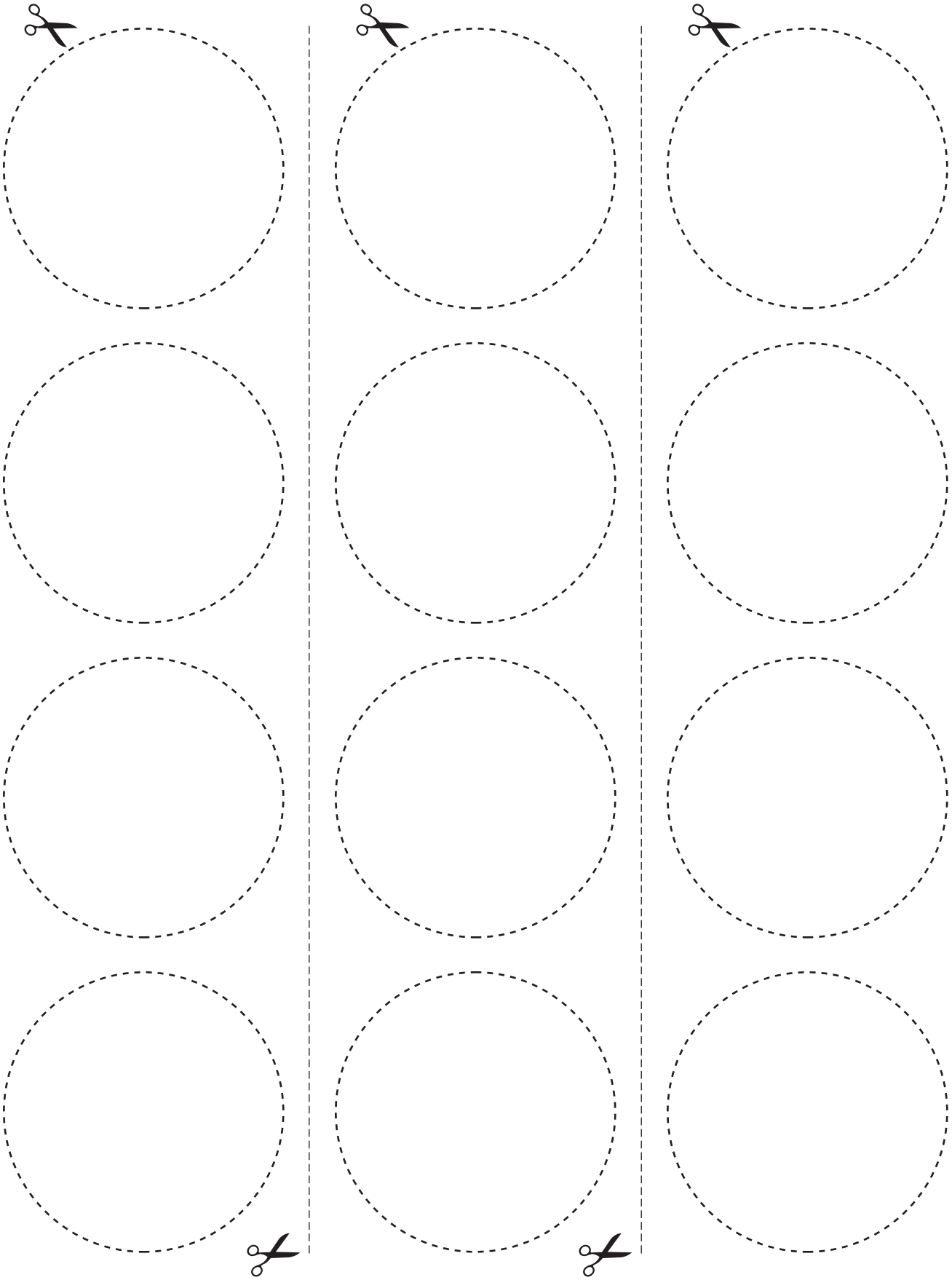

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Math Word Bank A

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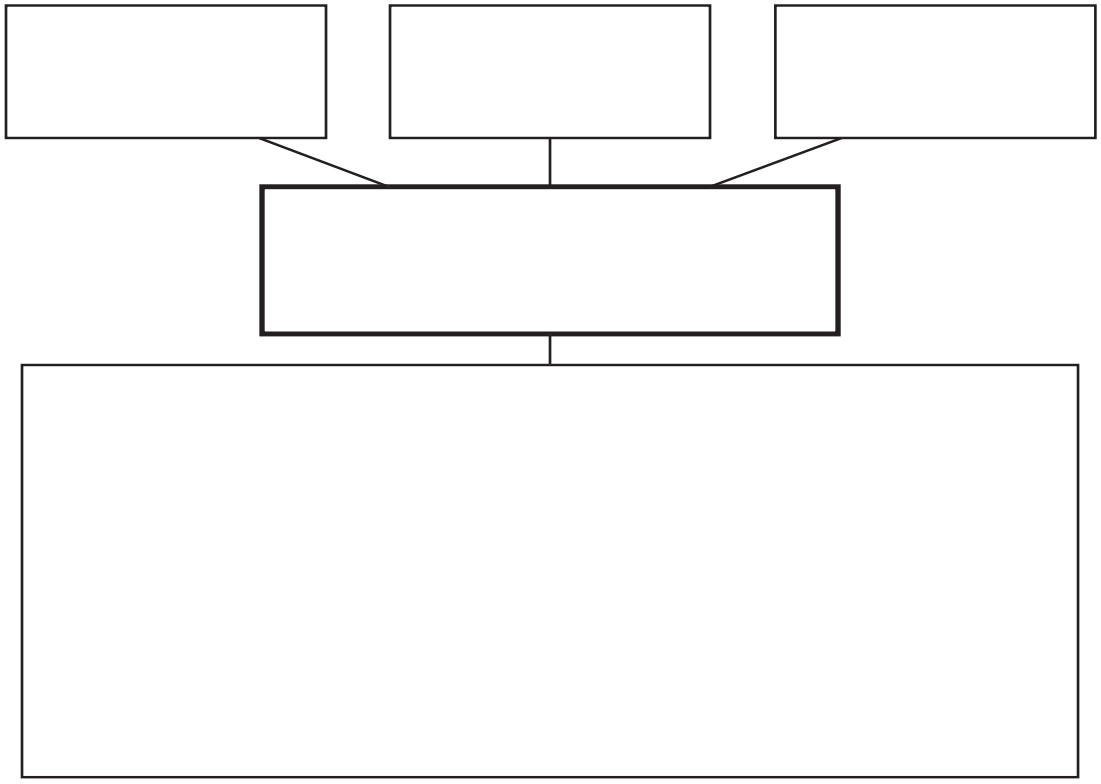
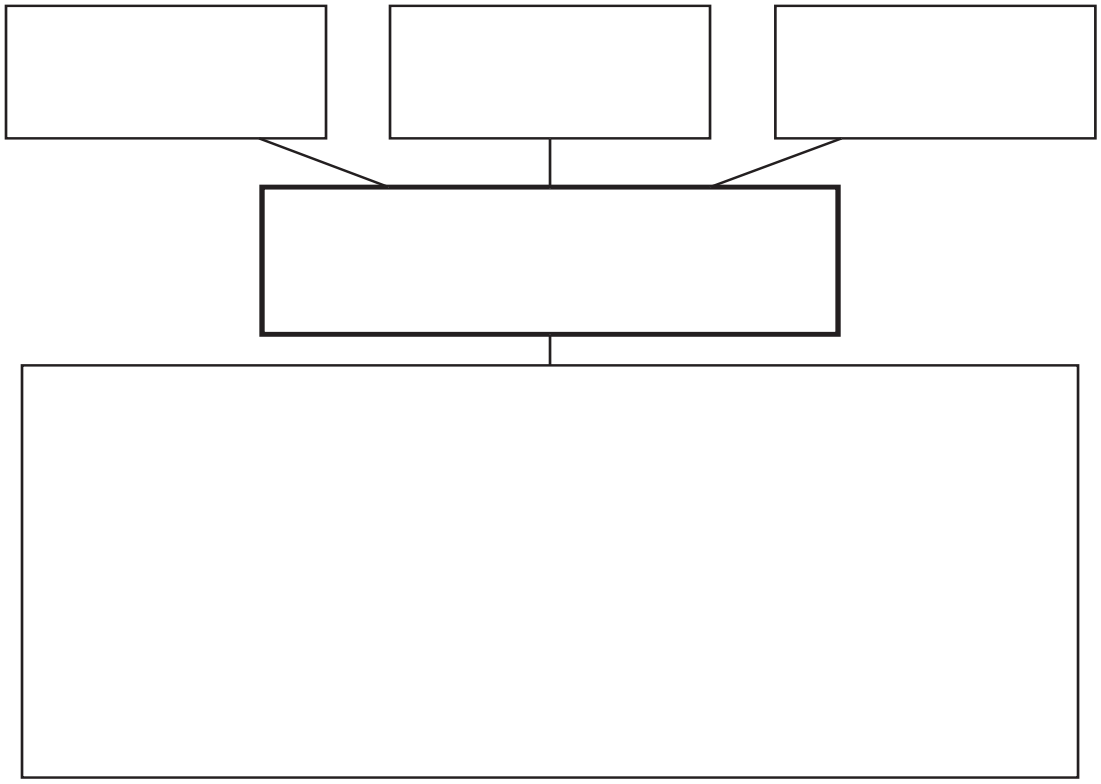




Place Value for Decimals

When we write a money amount like $6.23, the number is a decimal. The place that each digit has in the number is very important.

dollars		dimes	pennies
6	.	2	3

Did You Know?

Decimals were invented by the Dutch scientist Simon Stevin, in 1585.

In England, 3.42 is written as 3·42. In France, 3.42 is written as 3,42.

The decimal point separates dollars from cents.

The 6 is worth 6 dollars.

The 2 is worth 20 cents, or 2 dimes, or $\frac{2}{10}$ of a dollar.

The 3 is worth 3 cents, or 3 pennies, or $\frac{3}{100}$ of a dollar.

We can use a **place-value chart** to show how much each digit in a decimal is worth.
The **place** for a digit is its position in the number.
The **value** of a digit is how much it is worth.

Example The number 3.456 is shown in a place-value chart below.

1s ones place		**0.1s** tenths place	**0.01s** hundredths place	**0.001s** thousandths place
3	.	4	5	6

The 3 in the ones place is worth 3 (3 ones).
The 4 in the tenths place is worth 0.4 (4 tenths).
The 5 in the hundredths place is worth 0.05 (5 hundredths).
The 6 in the thousandths place is worth 0.006 (6 thousandths).

3.456 is read "3 and 456 thousandths." The decimal point is read as "and."

Equivalent Fractions Game

Materials ☐ 1 deck of Fraction Cards (*Math Journal* 2, Activity Sheets 5–8)

Players 2

Skill Recognizing fractions that are equivalent

Object of the game To collect more Fraction Cards.

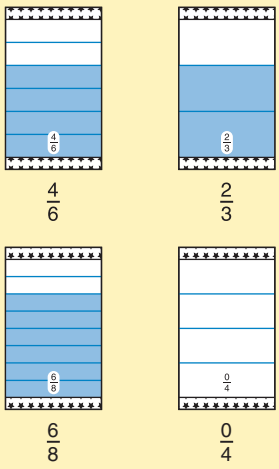
Directions

1. Shuffle the Fraction Cards and place the deck picture-side down on the table.
2. Turn the top card over near the deck of cards.
3. Players take turns. When it is your turn, turn over the top card from the deck. Try to match this card with a picture-side up card on the table.
   - If you find a match, take the 2 matching cards. Then, if there are no cards left picture-side up, turn the top card over near the deck.
   - If you cannot find a match, place your card picture-side up next to the other cards. Your turn is over.
4. The game ends when all cards have been matched. The player with more cards wins.

Example The top card is turned over and put on the table. The picture shows $\frac{4}{6}$.

Player 1 turns over the $\frac{2}{3}$ card. This card matches $\frac{4}{6}$. Player 1 takes both cards. There are no cards left picture-side up. So Player 1 turns over the top card and puts it near the deck. The picture shows $\frac{6}{8}$.

Player 2 turns over the $\frac{0}{4}$ card. There is no match. This card is placed next to $\frac{6}{8}$. It is Player 1's turn again.



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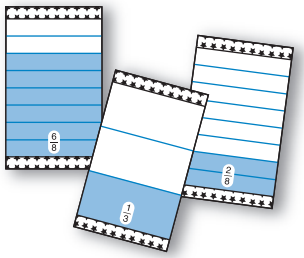
Equivalent Fractions Game
(Advanced Version)



Materials ☐ 1 deck of Fraction Cards (*Math Journal 2,* Activity Sheets 5–8)

Players 2

Skill Recognizing fractions that are equivalent

Object of the game To collect more Fraction Cards.

Directions

1. Shuffle the Fraction Cards and place the deck picture-side down on the table.
2. Turn the top card over near the deck of cards.
3. Players take turns. When it is your turn, take the top card from the deck, **but do not turn it over** (keep the picture side down). Try to match the fraction with one of the picture-side up cards on the table.
   - If you find a match, turn the card over to see if you matched the cards correctly. If you did, take both cards. Then, if there are no cards left picture-side up, turn the top card over.
   - If there is no match, place your card next to the other cards, picture-side up. Your turn is over.
   - If there is a match but you did not find it, the other player can take the matching cards.
4. The game ends when all cards have been matched. The player with more cards wins.

Fraction Top-It

Materials ☐ 1 deck of Fraction Cards (*Math Journal 2*, Activity Sheets 5–8)

Players 2

Skill Comparing fractions

Object of the game To collect more cards.

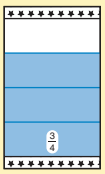
Directions

1. Shuffle the Fraction Cards and place the deck picture-side down on the table.
2. Each player turns over a card from the top of the deck. Players compare the shaded parts of the cards. The player with the larger fraction shaded takes both cards.
3. If the shaded parts are equal, the fractions are equivalent. Each player then turns over another card. The player with the larger fraction shaded takes all the cards from both plays.
4. The game is over when all cards have been taken from the deck. The player with more cards wins.

Examples

Players turn over a $\frac{3}{4}$ card and a $\frac{4}{6}$ card.

The $\frac{3}{4}$ card has a larger shaded area. The player holding the $\frac{3}{4}$ card takes both cards.

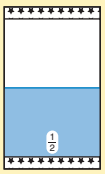


$\frac{3}{4}$

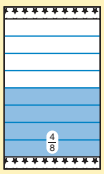
$\frac{4}{6}$

Players turn over a $\frac{1}{2}$ card and a $\frac{4}{8}$ card.

The shaded parts are equal. Each player turns over another card. The player with the larger Fraction Card takes all the cards.



$\frac{1}{2}$



$\frac{4}{8}$

Fraction Top-It (Advanced Version)

Materials ☐ 1 deck of Fraction Cards (*Math Journal 2,* Activity Sheets 5–8)

Players 2

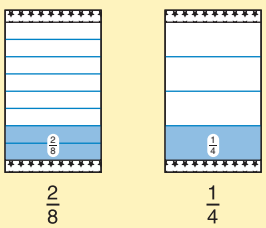
Skill Comparing fractions

Object of the game To collect more cards.

Directions

1. Shuffle the Fraction Cards and place the deck picture-side down on the table.
2. Each player takes a card from the top of the deck **but does not turn it over.** The cards remain picture-side down.
3. Players take turns. When it is your turn:
   - Say whether you think your fraction is greater than, less than, or equivalent to the other player's fraction.
   - Turn the cards over and compare the shaded parts. If you were correct, take both cards. If you were wrong, the other player takes both cards.
4. The game is over when all cards have been taken from the deck. The player with more cards wins.

Example Joel draws a $\frac{2}{8}$ card. Sue draws a $\frac{1}{4}$ card. It is Sue's turn, and she says that her fraction is less than Joel's. They turn their cards over and find that the shaded areas are equal. The fractions are equivalent. Sue was wrong, so Joel takes both cards.



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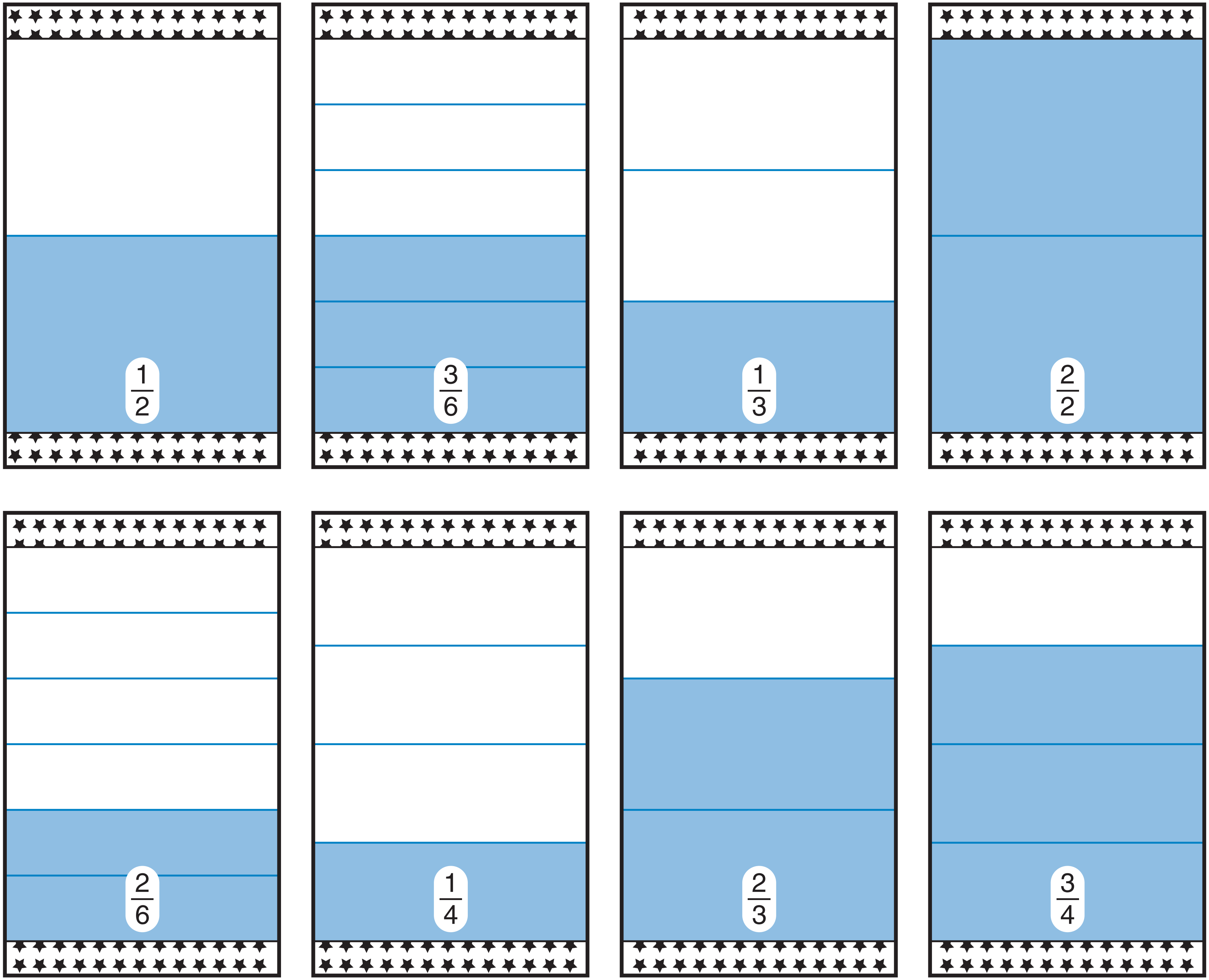
NOTE: Card backs show written fraction only.

Date Time

LESSON 8·5

Fraction Cards



Activity Sheet 5

back to lesson

back to game instructions

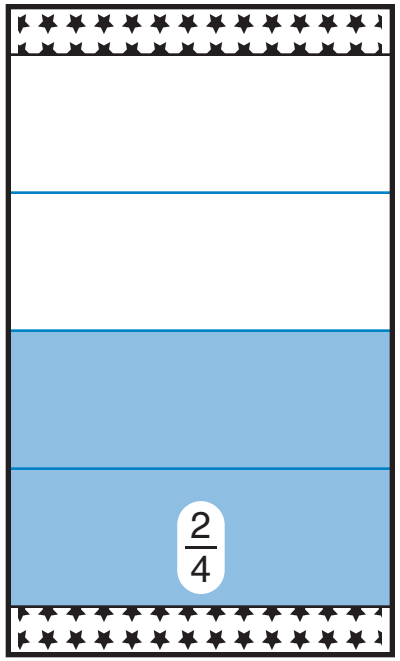
NOTE: Card backs show written fraction only.

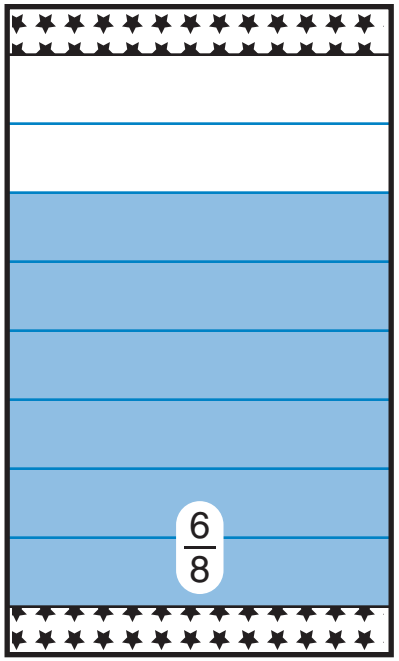
LESSON 8•5

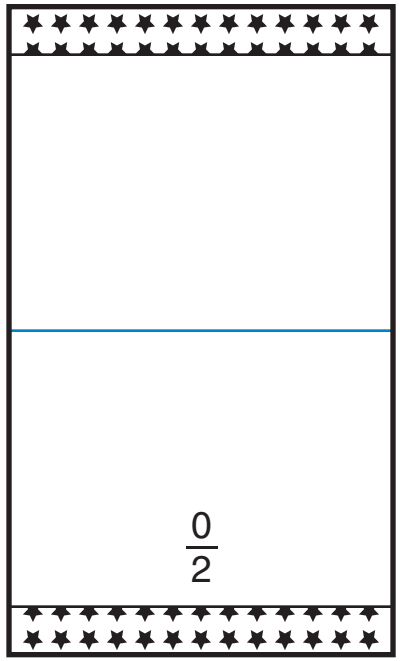
Fraction Cards

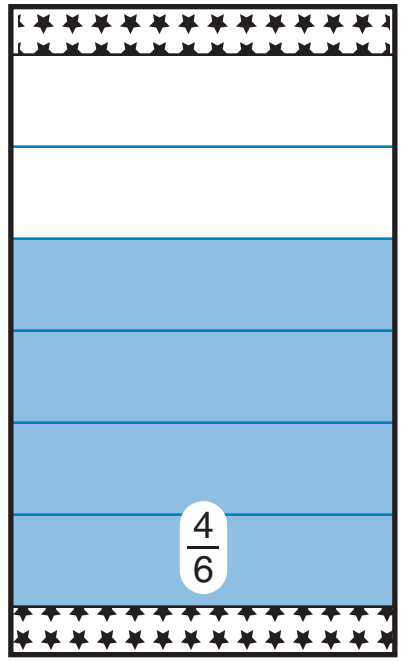
Date

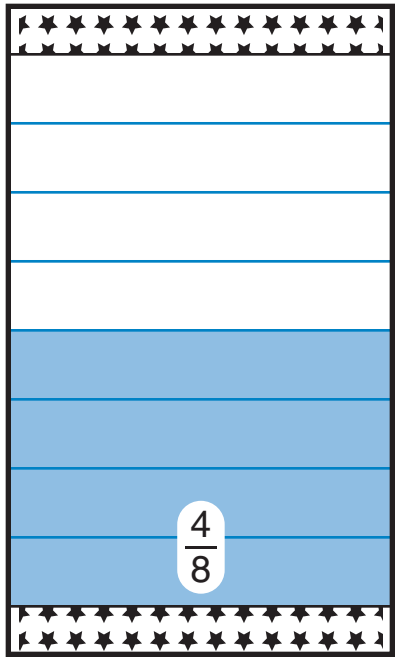
Time

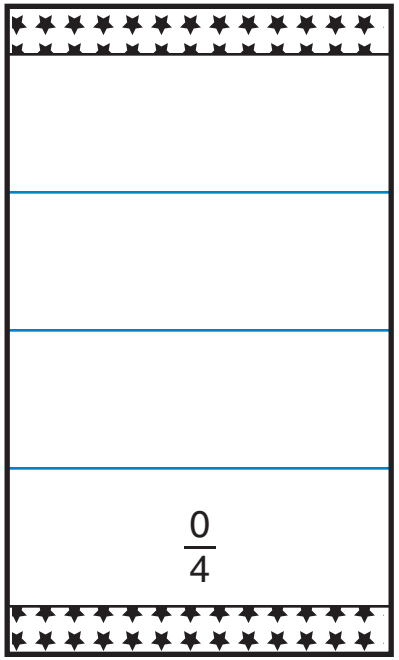


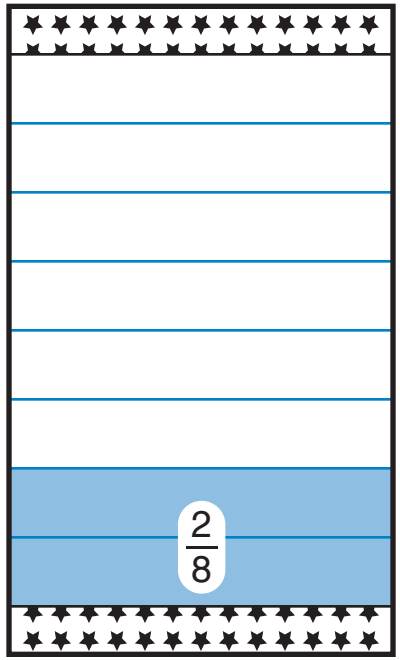


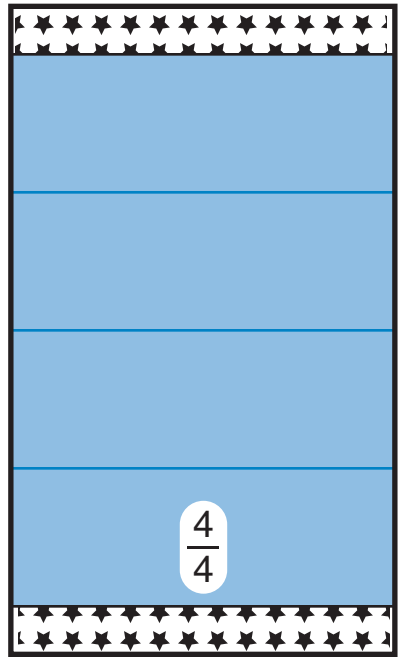












Activity Sheet 6

back to lesson

back to game instructions

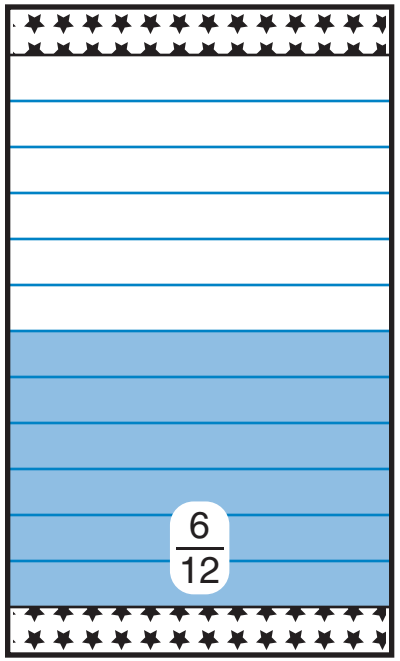
NOTE: Card backs show written fraction only.

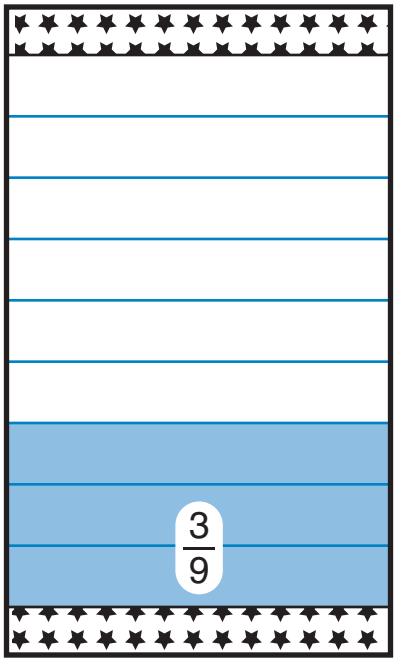
LESSON 8•5

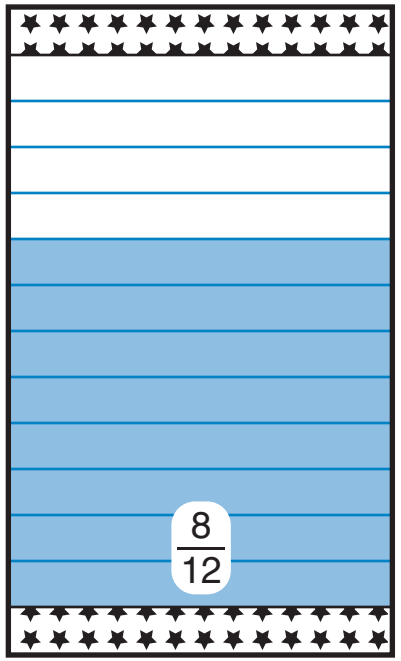
Fraction Cards

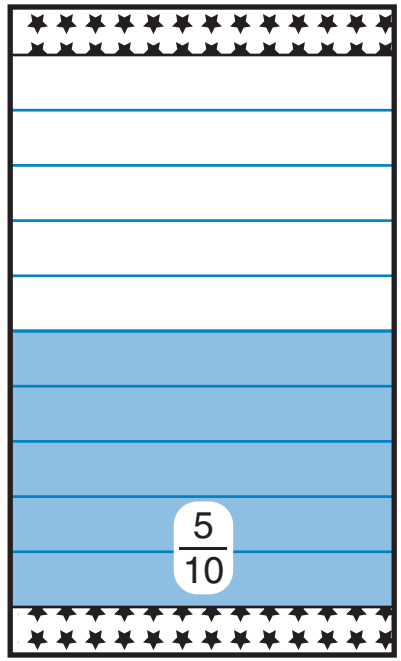
Date

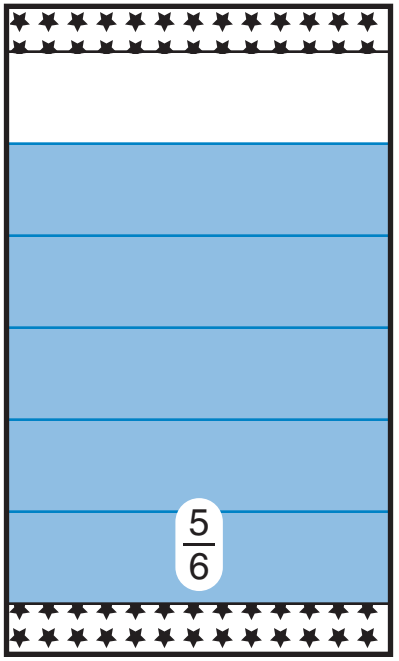
Time

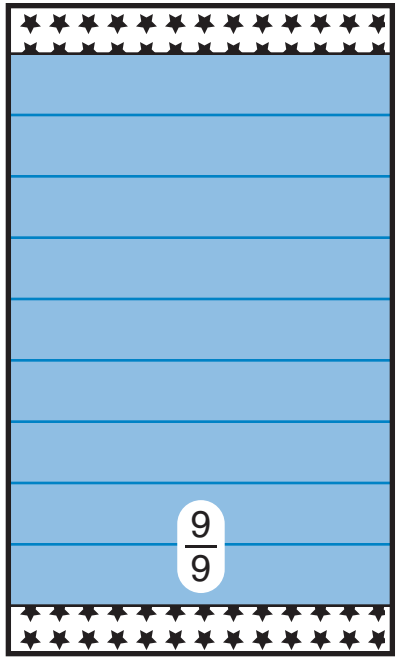


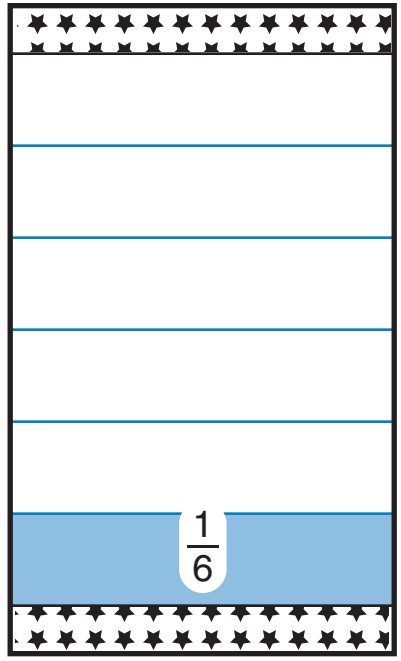












Activity Sheet 7

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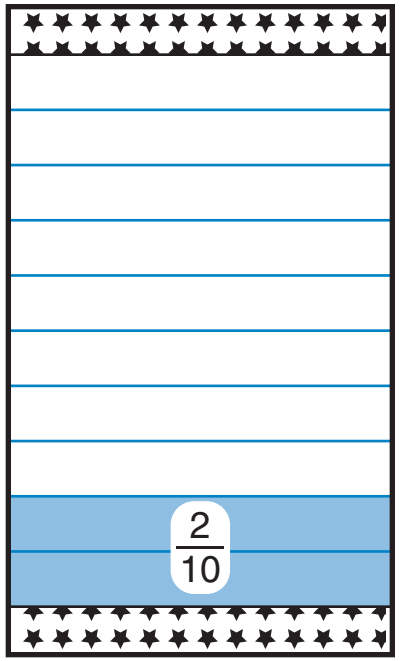
NOTE: Card backs show written fraction only.

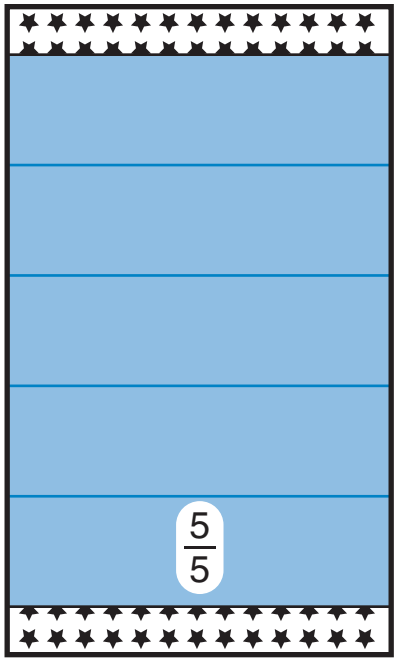
LESSON 8•5

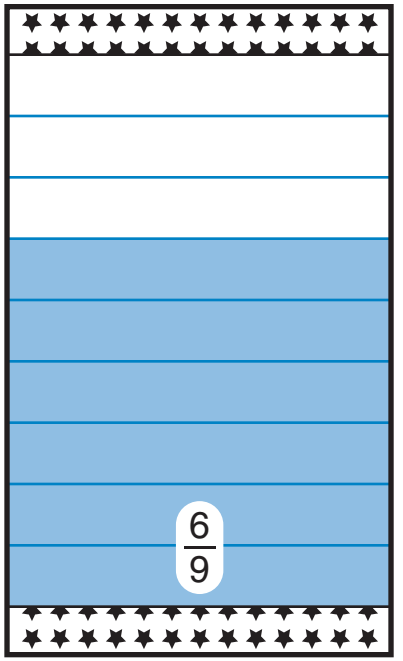
Fraction Cards

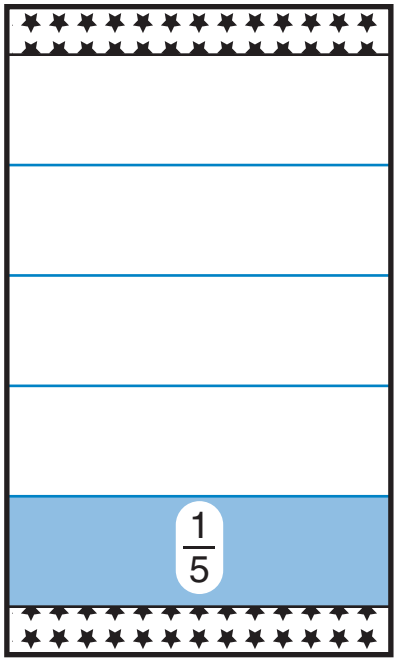
Date

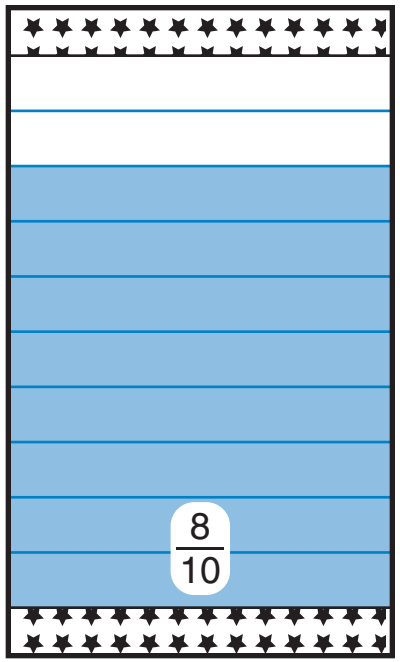
Time

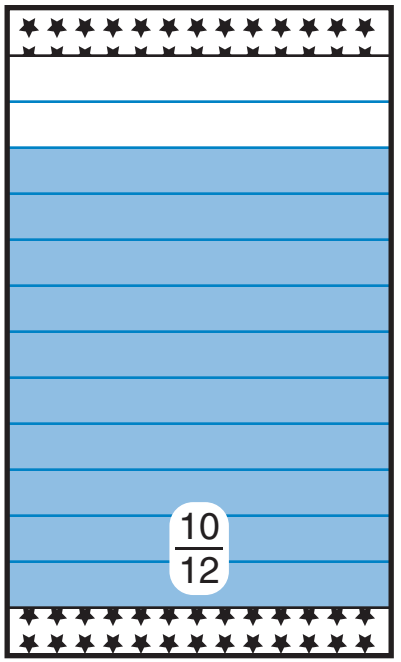


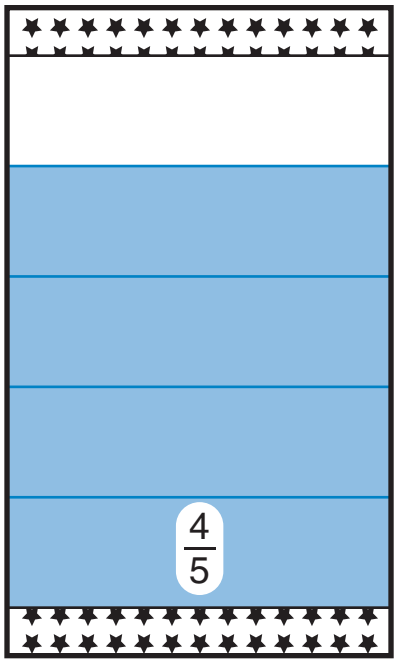


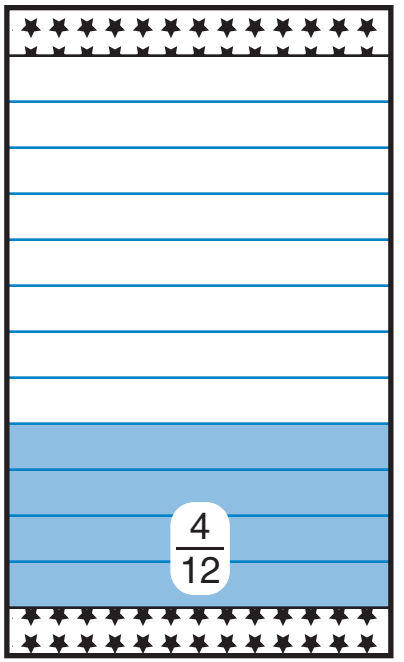












Activity Sheet 8