

# Showing Fractions

## Show, Write, and Draw Fractions



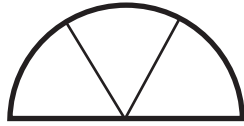
### Self-Check: Question 1

1. **A.** Two aquas is what fraction of the red circle? \_\_\_\_\_
- B.** When you wrote the fraction as a number, how did you know what denominator to use? How did you know what numerator to use?
  
- C.** Write a number sentence for 1A. \_\_\_\_\_
- D.** Write the fraction in Question 1A in words. \_\_\_\_\_
- E.** Two aquas is what fraction of the pink piece? Show or tell how you know.

Use the menu and the Self-Check questions to choose practice with showing fractions and writing fractions in numbers and words.

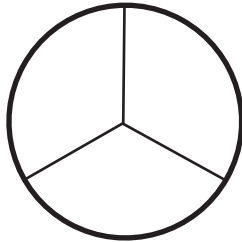
Workshop Menu			
	▲ Working On It!	● Getting It!	■ Got It!
<b>Can I Do This?</b>	  Jacob	  Ana	  Nicholas
Show fractions with circle pieces and fraction strips. Order fractions on a number line. Show fractions with numbers, words, and drawings.	Questions 2, 3, 6–8, 12–15	Questions 3, 4, 7–10, 13–15	Questions 3–5, 8–11, 13–15

 **2. A.** Cover a pink piece with 3 aquas. \_\_\_\_\_ equal size parts



Each part is \_\_\_\_\_ of the pink circle.

**B.** Cover a red circle with 3 oranges. \_\_\_\_\_ equal size parts



Each part is \_\_\_\_\_ of the red circle.

**C.** Two oranges are what part of the red circle? \_\_\_\_\_

**D.** Write a number sentence for Question 2C. \_\_\_\_\_

 **3. A.** Cover a pink piece with purples. \_\_\_\_\_ equal size parts

Each part is \_\_\_\_\_ of the pink piece.

**B.** Three purples are what part of the pink piece? \_\_\_\_\_

**C.** Write a number sentence for Question 3B. \_\_\_\_\_

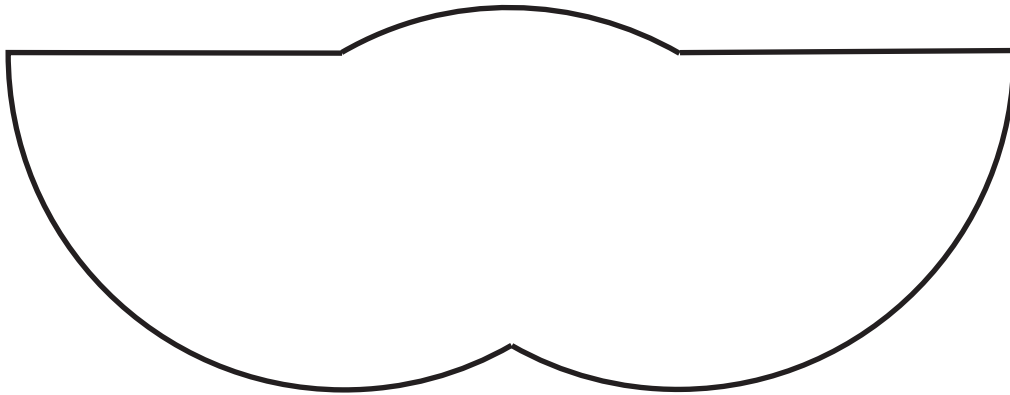
**D.** Cover a red circle with all greens. \_\_\_\_\_ equal size parts

Each part is \_\_\_\_\_ of the red circle.

**E.** Three greens are what part of a red circle? \_\_\_\_\_

**F.** Write a number sentence for Question 3E. \_\_\_\_\_

 **4.** If the shape below is the unit whole, write a fraction for the items below.



- A.** one aqua piece \_\_\_\_\_
- B.** one orange piece \_\_\_\_\_
- C.** an orange and aqua piece together \_\_\_\_\_
- D.** Write a number sentence for Question 4C. \_\_\_\_\_

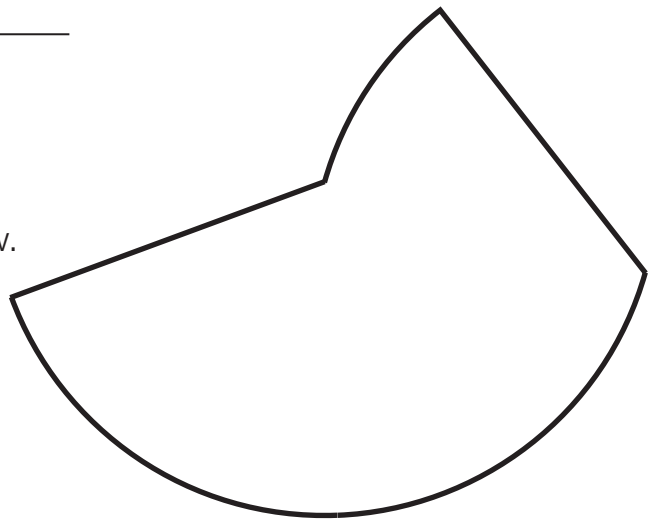
 **5. A.** Cover this shape with all one color.

What color did you use? \_\_\_\_\_

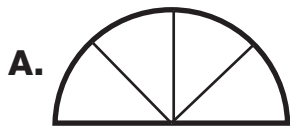
How many pieces? \_\_\_\_\_

If the shape is the unit whole,  
write a fraction for the items below.

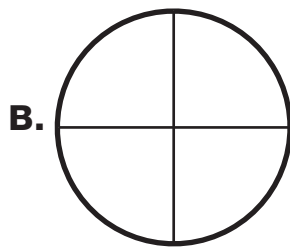
- B.** 1 purple piece \_\_\_\_\_
- C.** 1 green piece \_\_\_\_\_
- D.** Write a number sentence  
for 1 purple piece and  
one green piece together. \_\_\_\_\_



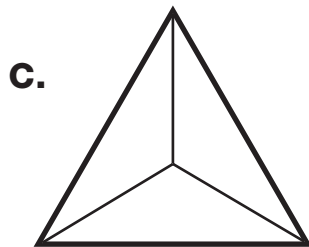
**6.** Look at the shapes and then fill in the blanks. For Questions 6A–6E, the unit whole is the figure shown.



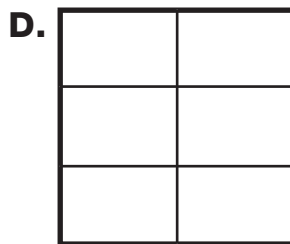
\_\_\_\_\_ equal size parts  
Each part is \_\_\_\_\_ of the whole.



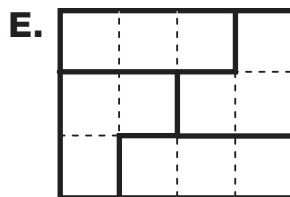
\_\_\_\_\_ equal size parts  
Each part is \_\_\_\_\_ of the whole.



\_\_\_\_\_ equal size parts  
Each part is \_\_\_\_\_ of the whole.

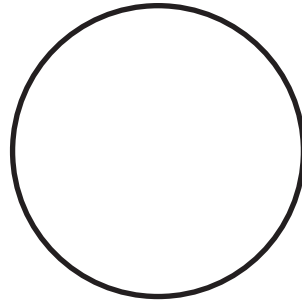


\_\_\_\_\_ equal size parts  
Each part is \_\_\_\_\_ of the whole.

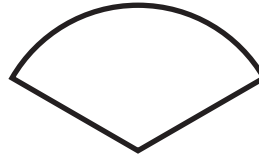


The solid lines show \_\_\_\_\_ equal size parts.  
Each part is \_\_\_\_\_ of the whole.

**7. A.** Ana's family ate  $\frac{3}{4}$  of a pie.  
Color  $\frac{3}{4}$  of the pie.



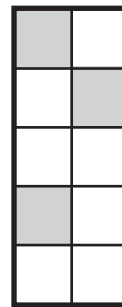
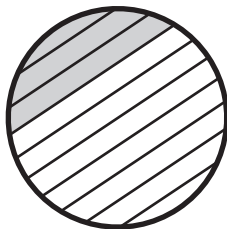
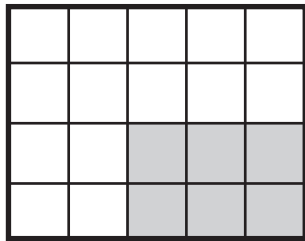
**B.** Here is a picture of a paper fan.  
Divide the fan into halves.  
Color  $\frac{1}{2}$  of the fan.




**C.** Here is a picture of a cake.  
Divide the cake into eighths.  
Color  $\frac{5}{8}$  of the cake.



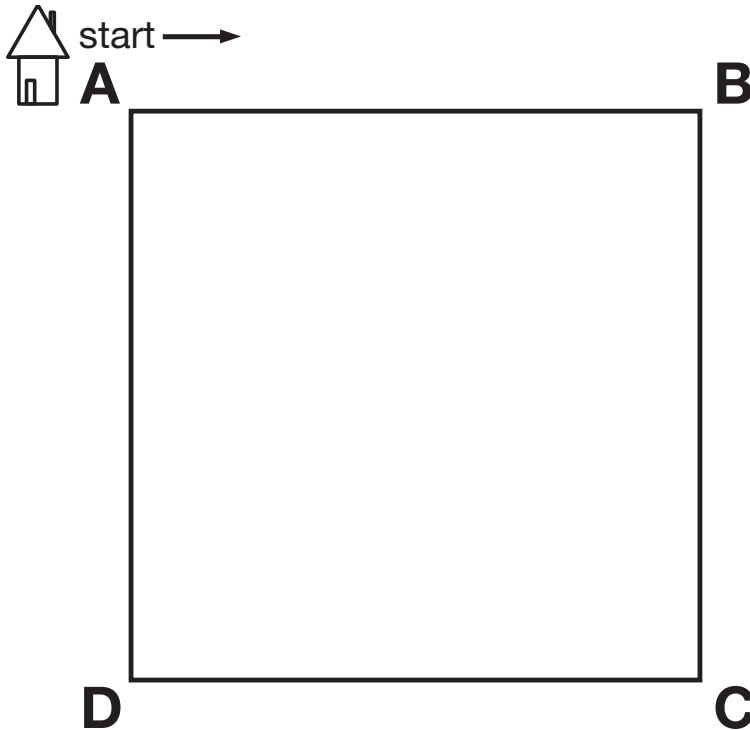
**8. A.** Circle the pictures that show  $\frac{3}{10}$ .



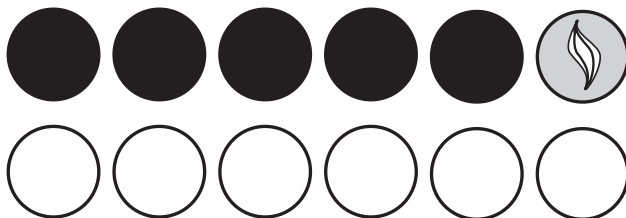
**B.** Explain why the circle does or does not show  $\frac{3}{10}$ .

 **9.** Molly is taking a walk around a square block. She starts at her house at corner A. About where will she be when she walks:


- A.**  $\frac{1}{2}$  of the way around the square?
- B.**  $\frac{1}{4}$  of the way around the square?
- C.**  $\frac{3}{4}$  of the way around the square?
- D.**  $\frac{1}{3}$  of the way around the square? Mark this point X.
- E.**  $\frac{3}{5}$  of the way around the square? Mark this point Y.
- F.**  $\frac{3}{10}$  of the way around the square? Mark this point Z.
- G.** Explain how you decided where to mark point Y.

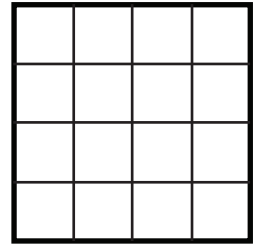


 **10.** Linda has a bag of twelve marbles.



- A.** What fraction of the marbles are black? \_\_\_\_\_
- B.** What fraction of the marbles are white? \_\_\_\_\_

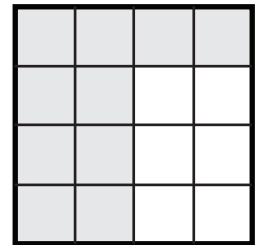
 **11. A.** Mrs. Dewey asked Ming and Irma to show  $\frac{5}{8}$  on this rectangle. Show  $\frac{5}{8}$  on this rectangle.



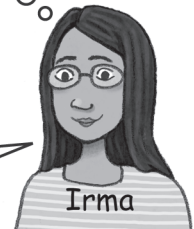
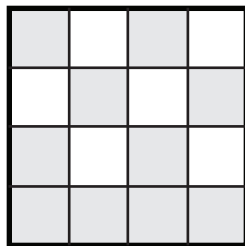
Here is how Ming showed  $\frac{5}{8}$ .



There are 16 boxes which is  $8 \times 2$ .  
 $\frac{1}{8}$  will be 2 boxes.  
 I'll shade 2 boxes 5 times.



Here is how Irma showed  $\frac{5}{8}$ .



There are 16 boxes.  $16 \div 8 = 2$ .  
 $\frac{1}{8}$  is 2 boxes.  
 $\frac{5}{8}$  is  $5 \times 2$  boxes = 10 boxes.

**B.** Who showed  $\frac{5}{8}$  on the rectangle—Ming or Irma? How do you know?

**C.** Why did Ming and Irma both say that  $\frac{1}{8}$  is 2 boxes?

**D.** Is Ming's  $\frac{5}{8}$  the same size as Irma's  $\frac{5}{8}$ ? \_\_\_\_\_

**E.** Is Ming's  $\frac{5}{8}$  the same shape as Irma's  $\frac{5}{8}$ ? \_\_\_\_\_



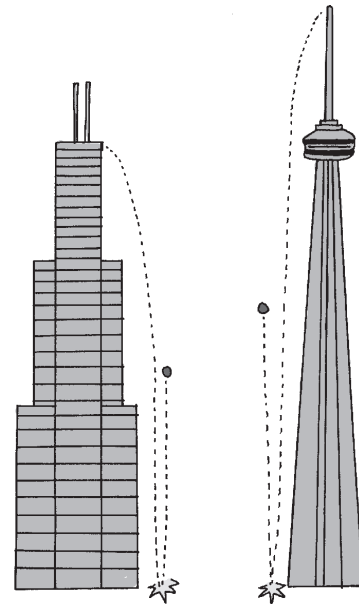




## When Are Halves Different?

When Jacob and Jerome looked at their data for the *Bouncing Ball* lab, they wondered what would happen if they dropped a tennis ball from a tall building. Jacob said, “Every time we dropped a ball during the lab, it bounced back about half of the drop height. Think how high a ball would bounce if we dropped it from the top of the Willis Tower in Chicago. That’s one of the tallest buildings in the world.”

Jerome said, “The CN Tower in Toronto is even taller. If we dropped the ball from the top of it, the ball would bounce even higher!”



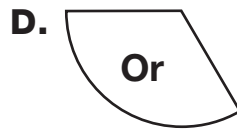
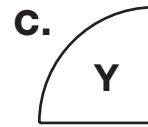
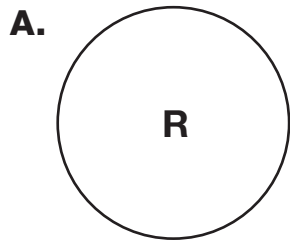
### Self-Check: Question 16

- 16.** If each ball bounces one-half the distance of the drop height, will the bounce heights be the same? Why or why not?

Use the Self-Check Question and menu to choose practice showing fractional parts of different-sized unit wholes.

Workshop Menu			
	▲ Working On It!	● Getting It!	■ Got It!
<b>Can I Do This?</b>	 	 	 
<b>Show fractional parts of different-sized unit wholes.</b>	<b>Questions 17–18</b>	<b>Questions 17–21</b>	<b>Questions 17–22</b>

**▲●■ 17.** What fraction circle pieces will you use to cover  $\frac{1}{2}$  of each piece below?



**▲●■ 18.** When are halves different sizes?

**■●■ 19.** Michael measured  $\frac{1}{2}$  of a yard of ribbon to decorate his mother's present. Irma measured  $\frac{1}{2}$  of a foot of ribbon to decorate her mother's present. Who used more ribbon? Explain how you decided.

**■●■ 20.** Linda and Jessie each ate  $\frac{1}{2}$  of an apple. Jessie's apple weighed 5 ounces. Linda's weighed 12 ounces. Who ate more apple? Explain how you decided.

**■●■ 21.** Lee Yah drank  $\frac{1}{3}$  of a cup of juice and Roberto drank  $\frac{1}{2}$  of a cup of juice. Who drank more juice? Show or tell how you know.

**■●■ 22.** Write a problem that compares  $\frac{1}{2}$  of different wholes.

## From Fractions to Unit wholes

Professor Peabody is trying to make up hard problems for his students. He thinks of fractions and the students have to find the unit whole.






Use fraction circle pieces to help you with Questions 23–27.

### Self-Check: Question 23

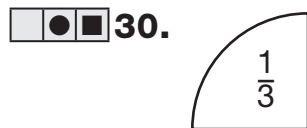
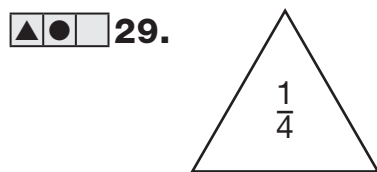
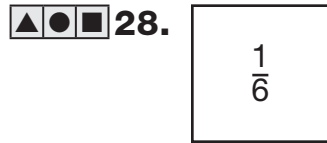
- 23. A.** One blue piece covers  $\frac{1}{4}$  of which other piece?  
**B.** One yellow piece covers  $\frac{1}{4}$  of which other piece?

Use the Self-Check Question to check your progress with showing the unit whole from a fractional part.

Workshop Menu			
<b>Can I Do This?</b>	<b>▲ Working On It!</b>	<b>● Getting It!</b>	<b>■ Got It!</b>
	 <p>I could use some extra help.</p> <p>Nicholas</p>	 <p>I just need some more practice.</p> <p>Ana</p>	 <p>I'm ready for a challenge.</p> <p>Jacob</p>
<b>Show the unit whole from a fractional part.</b>	<b>Questions 24, 28, 29</b>	<b>Questions 24–30</b>	<b>Questions 25–28, 30–31</b>

- ▲●■ 24. A.** One orange piece covers  $\frac{1}{3}$  of which other piece?  
**B.** One aqua piece covers  $\frac{1}{3}$  of which other piece?
- 25. A.** One purple piece covers  $\frac{1}{5}$  of which other piece?  
**B.** One green piece covers  $\frac{1}{5}$  of which other piece?
- 26. A.** One orange piece covers  $\frac{2}{3}$  of which other piece?  
**B.** One green piece covers  $\frac{2}{5}$  of which other piece?
- 27. A.** If a blue piece is  $\frac{1}{3}$ , draw a unit whole.  
**B.** If three blues are  $\frac{1}{2}$ , draw a unit whole.

**For Questions 28–31, Professor Peabody drew fractions of shapes. For each shape, draw what the whole shape could look like.**



# Fractions Greater Than One

## Self-Check: Question 32

Show the fraction in the box below in five other ways. The red circle is the unit whole for this page.

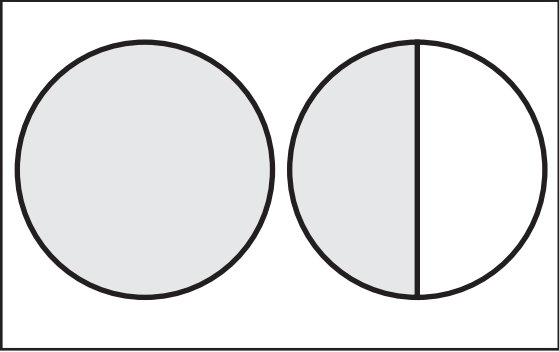
**32.**

\_\_\_\_\_

number


\_\_\_\_\_

words




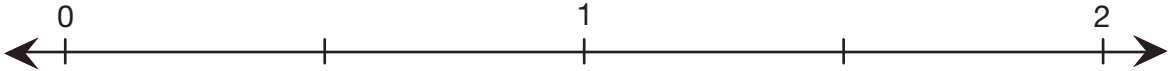
drawing

one whole fraction strip






one whole fraction strip





number sentence \_\_\_\_\_

Use the Self-Check Question and the menu to check your progress with representing fractions greater than one as improper fractions and mixed numbers.

Workshop Menu			
<b>Can I Do This?</b>	<b>▲ Working On It!</b>  I could use some extra help.	<b>● Getting It!</b>  I just need some more practice.	<b>■ Got It!</b>  I'm ready for a challenge.
Represent fractions greater than one as improper fractions and mixed numbers.	<b>Questions 33–34, 37–40</b>	<b>Questions 35–40</b>	<b>Questions 37–40</b>

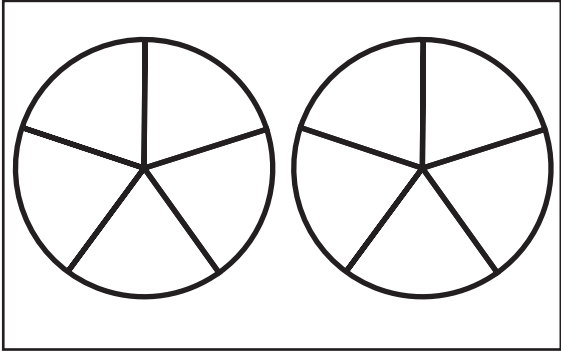
Show the fraction in each box below in five other ways. The red circle is the unit whole for this page.

**33.**

\_\_\_\_\_ number


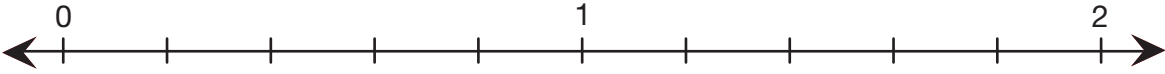
**seven-fifths**

\_\_\_\_\_ words



drawing

one whole fraction strip      one whole fraction strip

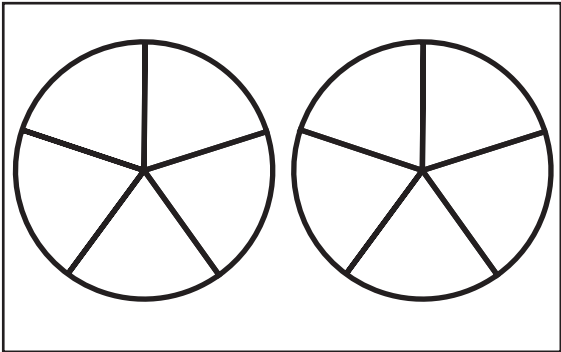
number sentence \_\_\_\_\_

**34.**

\_\_\_\_\_ number


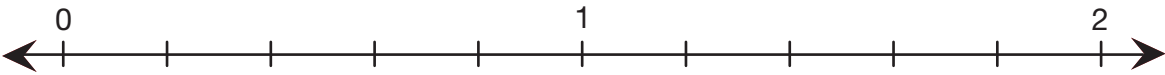
**three-fifths**

\_\_\_\_\_ words



drawing

one whole fraction strip      one whole fraction strip

number sentence \_\_\_\_\_

Show the fraction in each box below in five other ways. The red circle is the unit whole for this page.

**35.**

$1\frac{3}{8}$

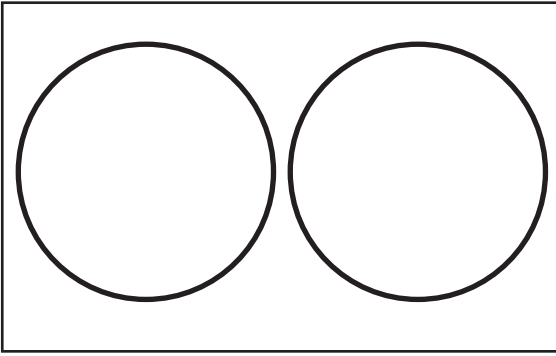
\_\_\_\_\_

number

\_\_\_\_\_

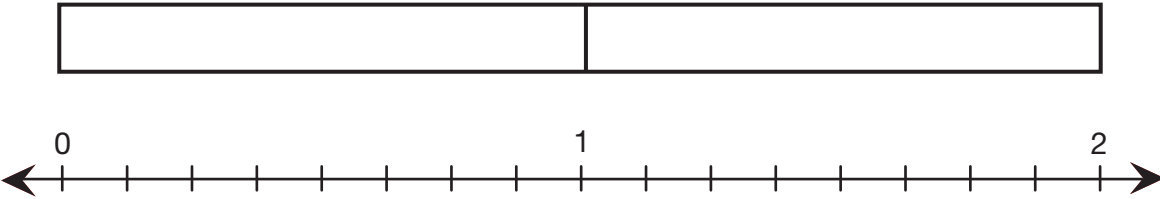
words

drawing



one whole fraction strip

one whole fraction strip



number sentence \_\_\_\_\_

**36.**


\_\_\_\_\_

number

\_\_\_\_\_

words


drawing



one whole fraction strip

one whole fraction strip

one whole fraction strip



number sentence \_\_\_\_\_

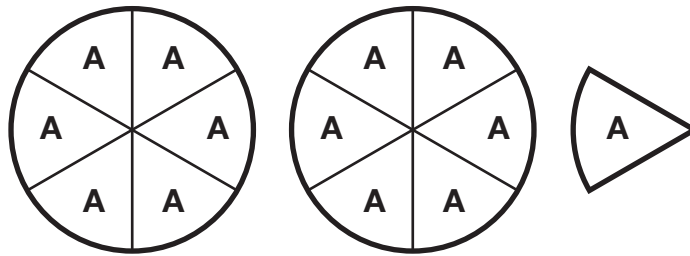


For Questions 37–40, write each fraction shown as a mixed number and an improper fraction. A fraction strip or the red circle is the unit whole. The first one is an example.

Example:

$1\frac{1}{4}$   
 mixed number  
 $\frac{5}{4}$   
 improper fraction

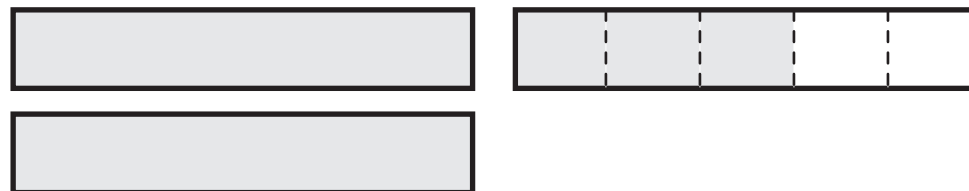
▲●■ 37.



\_\_\_\_\_ mixed number

\_\_\_\_\_ improper fraction

▲●■ 38.



\_\_\_\_\_ mixed number

\_\_\_\_\_ improper fraction

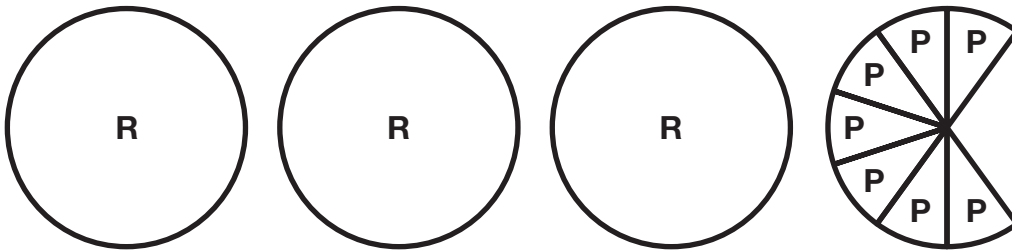
▲●■ 39.



\_\_\_\_\_ mixed number

\_\_\_\_\_ improper fraction

▲●■ 40.



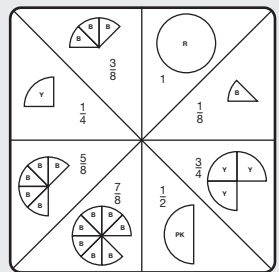
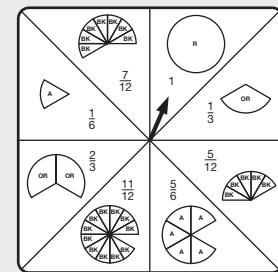


\_\_\_\_\_ mixed number

\_\_\_\_\_ improper fraction

## Self-Check

Use the menu to decide to play either *Fraction Fill 1* or *Fraction Fill 2*. These games provide practice writing number sentences.

Workshop Menu		
Can I Do This?	<p>▲ Working On It!</p> <p>I could use some extra help.</p>  <p>Jacob</p>	<p>■ Got It!</p> <p>I'm ready for a challenge.</p>  <p>Nicholas</p>
	<p>Play Fraction Fill 1</p> 	<p>Play Fraction Fill 2</p> 
Write number sentences to show a unit whole divided into fractions.		