Name _____ Date _____

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.

Can I Do This?	**Working On It!** I could use some extra help.	**Getting It!** I just need some more practice.	**Got It!** I'm ready for a challenge.
Show fractions with circle pieces and fraction strips. Order fractions on a number line. Show fractions with numbers, words, and drawings.	★ Q# 2, 3, 6–8, 12–15	● Q# 3, 4, 7–10, 13–15	■ Q# 3–5, 8–11, 13–15

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Workshop: Many Ways to Show a Fraction   SAB · Grade 4 · Unit 8 · Lesson 7 **259**

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Name _____ Date _____

★**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 is 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 is what part of a red circle? _____
F. Write a number sentence for Question 3E. _____

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***Student Activity Book* - Page 260**
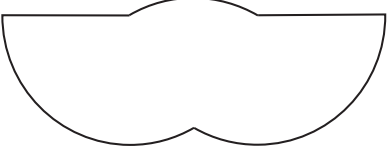
Student Activity Book

Showing Fractions

Questions 1–40 (SAB pp. 259–276)

1. **A.** $\frac{2}{6}$

   B. The denominator is the number of aqua pieces needed to cover the red circle. The numerator is the number of pieces used.

   C. $\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$ or $\frac{1}{6} \times 2 = \frac{2}{6}$

   D. Two-sixths

   E. $\frac{2}{3}$. The denominator is 3 because it takes 3 aqua pieces to cover the pink piece. The numerator is 2 because that's how many we're using.

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

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

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

   D. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$ or $\frac{1}{3} \times 2 = \frac{2}{3}$

3. **A.** 5, $\frac{1}{5}$

   B. $\frac{3}{5}$

   C. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$ or $\frac{1}{5} \times 3 = \frac{3}{5}$

   D. 5, $\frac{1}{5}$

   E. $\frac{3}{5}$

   F. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$ or $\frac{1}{5} \times 3 = \frac{3}{5}$

4. A. $\frac{1}{5}$

   B. $\frac{2}{5}$

   C. $\frac{3}{5}$

   D. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$ or $\frac{1}{5} \times 3 = \frac{3}{5}$
   or $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$

5. A. 5 purple pieces

   B. $\frac{1}{5}$

   C. $\frac{2}{5}$

   D. $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$

6. A. 4, $\frac{1}{4}$

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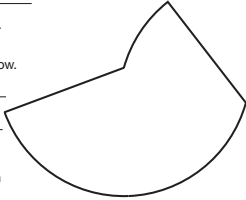
   C. 3, $\frac{1}{3}$

   D. 6, $\frac{1}{6}$

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

Name _____ Date _____

●■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. _____

Workshop: Many Ways to Show a Fraction   SAB · Grade 4 · Unit 8 · Lesson 7 **261**

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Name _____ Date _____

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

A.   _____ equal size parts

Each part is _____ of the whole.

B.   _____ equal size parts

Each part is _____ of the whole.

C.   _____ equal size parts

Each part is _____ of the whole.

D.   _____ equal size parts

Each part is _____ of the whole.

E.   The solid lines show _____ equal size parts

Each part is _____ of the whole.
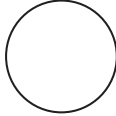
262 SAB · Grade 4 · Unit 8 · Lesson 7   Workshop: Many Ways to Show a Fraction

Student Activity Book - **Page 262**
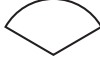
Name _____ Date _____

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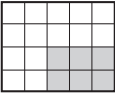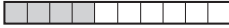   Color $\frac{3}{4}$ of the pie.

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.

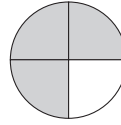★●■8. **A.** Circle the pictures that show $\frac{3}{10}$.
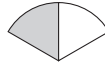
B. Explain why the circle does or does not show $\frac{3}{10}$.

Workshop: Many Ways to Show a Fraction   SAB · Grade 4 · Unit 8 · Lesson 7 **263**

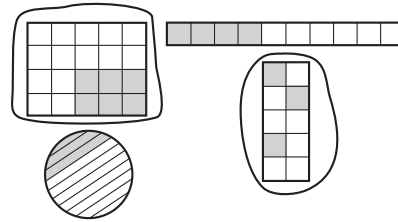*Student Activity Book* - **Page 263**

7. A.

B.

C. Any 5 squares can be shaded.
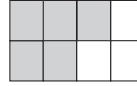
8. A.

B. Even though 3 of the strips are shaded, and there are 10 strips, the strips are not the same size.

9. A. C

B. B

C. D

D.

E.

F.
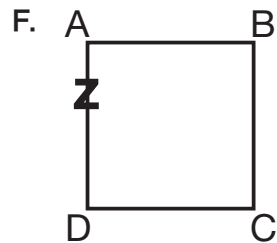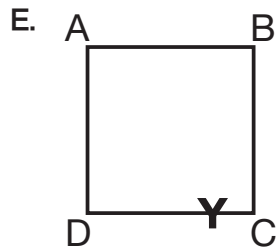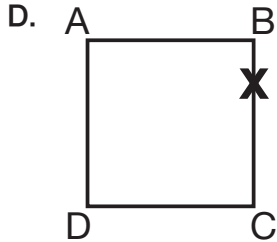
G. Possible response; I knew that point C is $\frac{1}{2}$ around the square, and that D is $\frac{3}{4}$ around the square. $\frac{3}{5}$ is between $\frac{1}{2}$ and $\frac{3}{4}$, and closer to $\frac{1}{2}$.

10. A. $\frac{5}{12}$

B. $\frac{6}{12}$

11. A. Any ten squares

B. They both showed $\frac{5}{8}$ on the rectangle. They both shaded 10 squares.

C. Divide 16 into 8 equal parts, each part is 2 boxes.

D. Yes

E. No

Name _____ **Date** _____

●■**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? _____

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Name _____ **Date** _____

■**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 $\frac{5}{8}$.

$\frac{1}{8}$ is ☐☐

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

Ming

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

☐☐ is $\frac{1}{8}$

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

Irma

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 $\frac{5}{8}$? _____
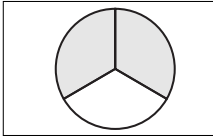
Student Activity Book - Page 265
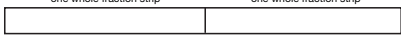
Name _____ Date _____

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

★**12.**

_____
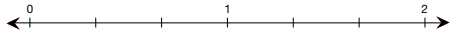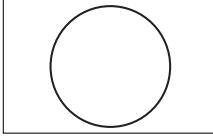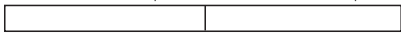number

_____
words

drawing
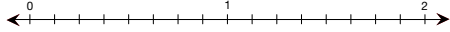
one whole fraction strip   one whole fraction strip

0   1   2

★●■**13.**

_____
number

five-eighths
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

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12.

$\frac{2}{3}$
_____
number

two-thirds
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

13.

$\frac{5}{8}$
_____
number

five-eighths
_____
words

drawing

one whole fraction strip   one whole fraction strip
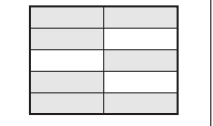
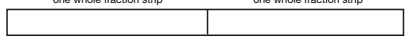0   1   2
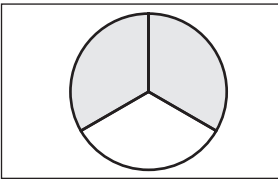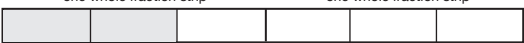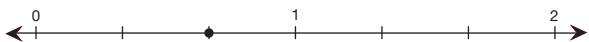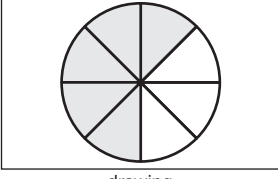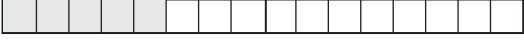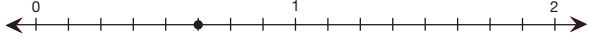
Name _____ Date _____

Show the fraction in each box below in four other ways.
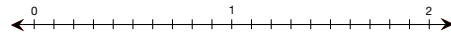
★●■**14.**

_____
number

_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2
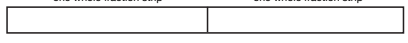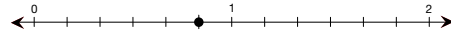
●■**15.**

_____
number

_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

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14.

$\frac{7}{10}$
_____
number

seven-tenths
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

15.

$\frac{5}{6}$
_____
number

five-sixths
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2
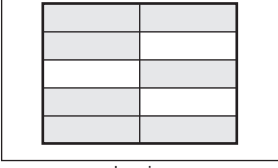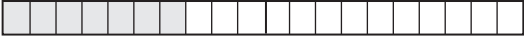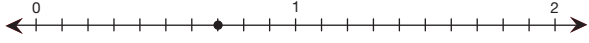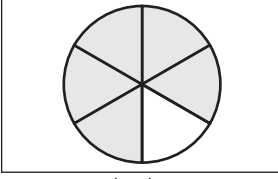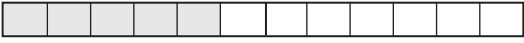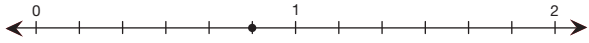
16. No, because the drop height for each one is different.

17. Possible responses:

   A. 1 pink, 2 yellows, 3 aquas, 4 blues, 5 purples, 6 blacks

   B. 1 yellow, 2 blues, 3 blacks

   C. 1 blue

   D. 1 aqua, 2 blacks

   E. 1 purple

18. When the wholes are different in size

19. Michael used more ribbon. A yard is three times as big as foot, so $\frac{1}{2}$ of a yard is bigger than $\frac{1}{2}$ of a foot.

20. Linda ate more apple. Linda's apple (the unit whole) was bigger than Jessie's.

21. Roberto drank more juice. The unit whole is one cup. $\frac{1}{2} > \frac{1}{3}$.

22. Problems will vary. Possible response: Becky ate $\frac{1}{2}$ of a 6-inch pizza. Her sister ate $\frac{1}{2}$ of a 12-inch pizza. Who ate more pizza? Explain how you decided.

Name _____ Date _____

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 bu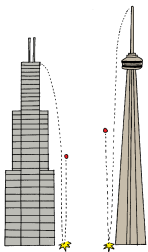ilding. Jacob said, "Every time we dropped a ball during the lab, it bounced back about half of the drop height. Think how high a ball would bounce if we dropped it from the top of the Willis Tower in Chicago. That's one of the tallest buildings in the world."

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.

Can I Do This?	Working On It! I could use some extra help.	Getting It! I just need some more practice.	Got It! I'm ready for a challenge.
Show fractional parts of different-sized unit wholes.	★ Q# 17–18	● Q# 17–21	■ Q# 17–22

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

A. R
B. Pk
C. Y
D. Or
E. G

★●■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.

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Name _____ Date _____

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.

Can I Do This?	Working On It! I could use some extra help.	Getting It! I just need some more practice.	Got It! I'm ready for a challenge.
Show the unit whole from a fractional part.	★ Q# 24, 28, 29	● Q# 24–30	■ Q# 25–28, 30–31

★● 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.

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Name _____ Date _____

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

★●■ 28.
$\frac{1}{6}$

★● 29.
$\frac{1}{4}$

●■ 30.
$\frac{1}{3}$

■ 31.
$\frac{2}{5}$

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23. **A.** 1 pink
    B. 1 red
24. **A.** 1 red
    B. 1 pink
25. **A.** 1 pink
    B. 1 red
26. **A.** 1 pink
    B. 1 pink
27. **A.**

    B.

28.–31. Shapes will vary. Possible responses:

28.
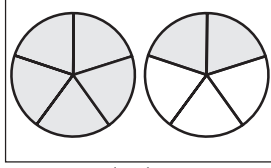| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ |

29.

30.

31.
| $\frac{2}{5}$ | $\frac{2}{5}$ | $\frac{1}{5}$ |
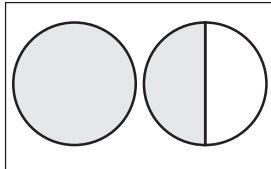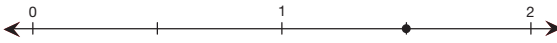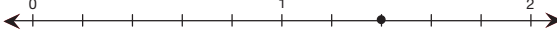
32.

$\frac{3}{2}$ or $1\frac{1}{2}$
_____
number
three-halves or
one and one-half
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

Number Sentence: $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{3}{2}$ or $\frac{1}{2} \times 3 = \frac{3}{2} = 1\frac{1}{2}$

33.

$\frac{7}{5}$
_____
number

seven-fifths
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

Number Sentence: $\frac{1}{5} \times 7 = \frac{7}{5} = 1\frac{2}{5}$;

$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{7}{5}$

34.

$\frac{3}{5}$
_____
number

three-fifths
_____
words

drawing

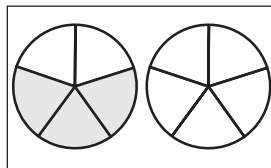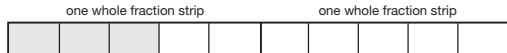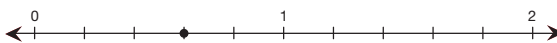one whole fraction strip   one whole fraction strip

0   1   2

Number Sentence: $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$
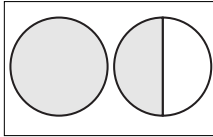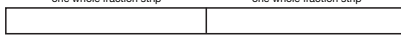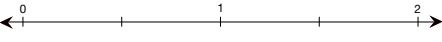

Name _____ Date _____

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

0   1   2

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.

Can I Do This?	Working On It! I could use some extra help.	Getting It! I just need some more practice.	Got It! I'm ready for a challenge.
Represent fractions greater than one as improper fractions and mixed numbers.	★ Q# 33–34, 37–40	● Q# 35–40	■ Q# 37–40
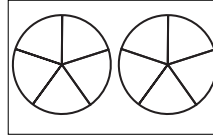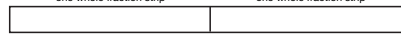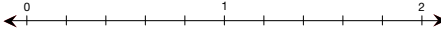
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Name _____ Date _____

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

0   1   2

number sentence _____

★34.

_____
number

three-fifths
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

number sentence _____

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Name _____ Date _____

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

0   1   2

number sentence _____

●■36.

_____
number

_____
words

drawing

one whole fraction strip   one whole fraction strip   one whole fraction strip

0   1   2   3

number sentence _____

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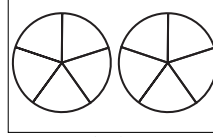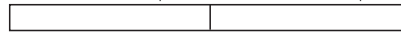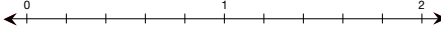Name _____ Date _____

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

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35.

$1\frac{3}{8}$
_____
number

one and three-eighths
_____
words

drawing

one whole fraction strip   one whole fraction strip

0   1   2

Number Sentence: $\frac{1}{8} \times 11 = \frac{11}{8} = 1\frac{3}{8}$; $1 + \frac{3}{8} = 1\frac{3}{8}$

36.

$\frac{11}{4}$ or $2\frac{3}{4}$
_____
number

eleven-fourths or
two and three-fourths
_____
words

drawing

one whole fraction strip   one whole fraction strip   one whole fraction strip

0   1   2   3

Number Sentence: $\frac{1}{4} \times 11 = \frac{11}{4} = 2\frac{3}{4}$; $2 + \frac{3}{4} = 2\frac{3}{4}$

37. $2\frac{1}{6}$; $\frac{13}{6}$

38. $2\frac{3}{5}$; $\frac{13}{5}$

39. $1\frac{4}{9}$; $\frac{13}{9}$

40. $3\frac{7}{10}$; $\frac{37}{10}$

Name _____   Date _____

★●■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.

Can I Do This?	Working On It!	Got It!
	I could use some extra help.	I'm ready for a challenge.
Write number sentences to show a unit whole divided into fractions.	Play Fraction Fill 1	Play Fraction Fill 2

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Fraction Representations Chart

Questions 1–4 (SAB pp. 289–292)

	Fraction	Circle	Strip	Number Line
Ex.	$\frac{1}{6}$			
1. A.	$\frac{2}{6}$			
B.	$\frac{3}{6}$			
C.	$\frac{4}{6}$			
D.	$\frac{5}{6}$			
E.	$\frac{6}{6}$			
2. A.	$\frac{1}{3}$			
B.	$\frac{2}{3}$			
C.	$\frac{3}{3}$			
3. A.	$\frac{1}{5}$			
B.	$\frac{2}{5}$			
C.	$\frac{3}{5}$			
D.	$\frac{4}{5}$			
E.	$\frac{5}{5}$			

4. A. $\frac{1}{12}$

B. $\frac{2}{12}$

C. $\frac{3}{12}$

D. $\frac{4}{12}$

E. $\frac{5}{12}$

F. $\frac{6}{12}$

4. G. $\frac{7}{12}$

H. $\frac{8}{12}$

I. $\frac{9}{12}$

J. $\frac{10}{12}$

K. $\frac{11}{12}$

L. $\frac{12}{12}$