

Student Guide

Fractions on Number Lines

Questions 1–3 (SG pp. 320–321)

1. Fifths

2. A. $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, 1, 1\frac{1}{5}, 1\frac{2}{5}, 1\frac{3}{5}, 1\frac{4}{5}, 2, 2\frac{1}{5}, 2\frac{2}{5}, 2\frac{3}{5}, 2\frac{4}{5}, 3$

B. $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}, \frac{6}{5}, \frac{7}{5}, \frac{8}{5}, \frac{9}{5}, \frac{10}{5}, \frac{11}{5}, \frac{12}{5}, \frac{13}{5}, \frac{14}{5}, \frac{15}{5}$

3. A. $1\frac{3}{4}$ or $\frac{7}{4}$

B. $2\frac{1}{3}$ or $\frac{7}{3}$

C. $1\frac{2}{6}$ or $\frac{8}{6}$

D. $\frac{4}{5}$

Fractions on Number Lines

Below is a rectangle divided into six equal parts. Each part is $\frac{1}{6}$ of the rectangle. There is also a number line from 0 to 1. It is divided into 6 equal parts. It has $\frac{1}{6}$ at the point that is one sixth of the distance from 0 to 1. It has $\frac{2}{6}$ at the point that is $\frac{2}{6}$ of the distance from 0 to 1, and so on.

1. Here are another fraction strip and number line divided into parts. What fractions should they be labeled with?

The three rectangles below represent 3 wholes. The shaded part of the rectangles represents $1\frac{2}{5}$ and $\frac{7}{5}$.

The number line goes from 0 to 3.

This size rectangle is one whole:

The line segment from 0 to 1 is the unit whole:

The point shown on the number line above is $1\frac{2}{5}$ units to the right of zero. We can also say that the point is at $\frac{7}{5}$.

$1\frac{2}{5}$ is called a **mixed number**. Mixed numbers are made up of a whole number and a fraction. $\frac{7}{5}$ is called an **improper fraction**. A fraction is called improper when the numerator is greater than or equal to the denominator.

2. A. Use the number line to count by fifths to 3 using mixed numbers.
B. Use the number line to count by fifths to 3 using improper fractions.

320 SG • Grade 4 • Unit 8 • Lesson 5 Fractions on Number Lines

Student Guide - Page 320

3. For each rectangle and number line below, tell what fraction of the whole is represented.

This size rectangle is one whole:

The line segment from 0 to 1 is the unit whole:

A.

B.

C.

D.

Use the *Labeling Fractions on Number Lines* and *Representing Fractions* pages in your *Student Activity Book* for more practice with showing fractions on number lines.

Fractions on Number Lines SG • Grade 4 • Unit 8 • Lesson 5 321

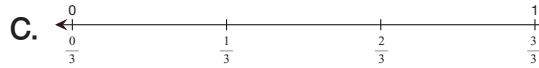
Student Guide - Page 321

Student Activity Book

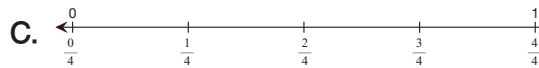
Labeling Fractions on Number Lines

Questions 1–5 (SAB pp. 255–256)

1. A. 3 parts



2. A. 4 parts

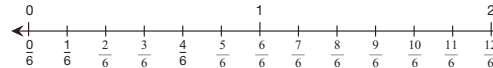


3. A. $\frac{3}{3}$

B. Answers will vary. Possible answers:

$\frac{4}{3}$ or $\frac{5}{3}$

4. A.

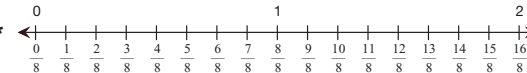


B. $\frac{12}{6}$

C. Answers will vary. Possible answers:

$\frac{1}{6}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}$.

5. A.*



B.* Answers will vary. Possible answers:

$\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}$.

C.* Answers will vary. Possible answers:

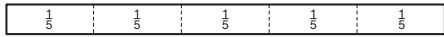
$\frac{9}{8}, \frac{10}{8}, \frac{11}{8}, \frac{12}{8}, \frac{13}{8}, \frac{14}{8}, \frac{15}{8}$.

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Labeling Fractions on Number Lines

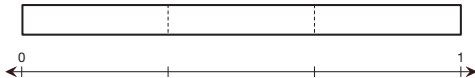
Here is a fraction strip that is divided into five equal parts. Each part is $\frac{1}{5}$ of the whole strip.



Here is the part of the number line from 0 to 1. The first mark is $\frac{1}{5}$ of the distance from 0 to 1. The second mark is $\frac{2}{5}$ of the distance from 0 to 1, and so on.

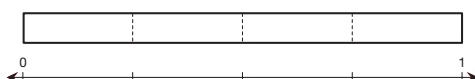


1. Here is another fraction strip and a matching number line.



- A. How many parts is this fraction strip divided into? _____
- B. Label each part to show what fraction of the whole strip it is.
- C. Label the number line with fractions.

2. Here is another fraction strip and a matching number line.



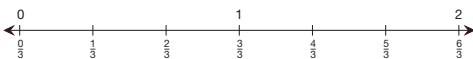
- A. How many parts is this fraction strip divided into? _____
- B. Label each part to show what fraction of the whole strip it is.
- C. Label the number line with fractions.

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Student Activity Book - Page 255

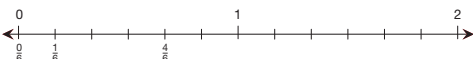
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3. Here is the part of the number line from 0 to 2. It is labeled with thirds:



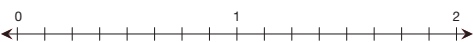
- A. Which fraction shown is equivalent to 1? _____
- B. Name a fraction shown that is between 1 and 2. _____

4. Here is the part of the number line from 0 to 2:



- A. Finish labeling the number line above to show sixths using improper fractions.
- B. Name a fraction you labeled that is equivalent to 2. _____
- C. Name a fraction you labeled that is between 0 and 1. _____

5. Here is another number line from 0 to 2.



- A. Label each mark on the number line.
- B. Name a fraction you labeled that is between 0 and 1. _____
- C. Name a fraction you labeled that is between 1 and 2. _____

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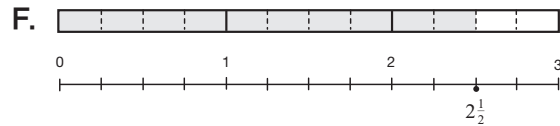
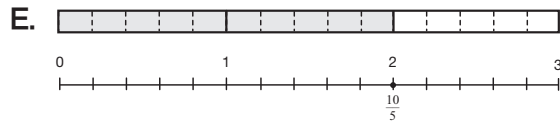
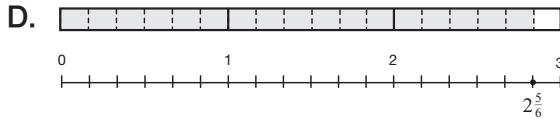
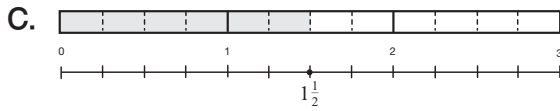
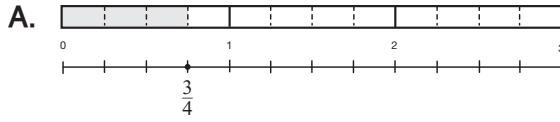
Student Activity Book - Page 256

*Answers and/or discussion are included in the lesson.

Student Activity Book

Representing Fractions

Questions A–F (SAB pp. 257–258)



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Representing Fractions

Show the given numbers with both rectangles and number lines.

For rectangles, this size rectangle is the unit whole:

For number lines, the segment from 0 to 1 is the unit whole:

Number	Representations
Example $1\frac{3}{4}$	
A. $\frac{3}{4}$	
B. $\frac{7}{4}$	
C. $1\frac{1}{2}$	

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Fractions on Number Lines

SAB • Grade 4 • Unit 8 • Lesson 5 257

Student Activity Book - Page 257

Name _____ Date _____

Number	Representations
D. $2\frac{5}{6}$	
E. $\frac{10}{5}$	
F. $2\frac{1}{2}$	

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Representing Fractions Feedback Box	Expectation	Check In	Comments
Represent fractions using fraction strips.	E1		
Locate fractions on a number line.	E1		
Represent fractions greater than one using number lines and fraction strips.	E5		

258 SAB • Grade 4 • Unit 8 • Lesson 5

Fractions on Number Lines

Student Activity Book - Page 258