## Student Guide

**Fractions on Number Lines (SG pp. 74–75)**
**Questions 1–3**
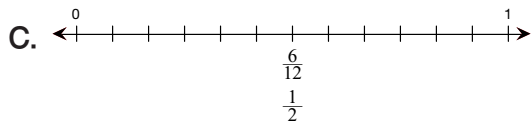
1. **A.** * 6

   **B.** $\frac{1}{6}$

   **C.**
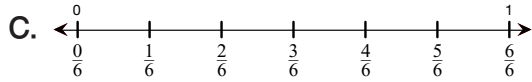


   **D.** $\frac{1}{2}$ and $\frac{3}{6}$
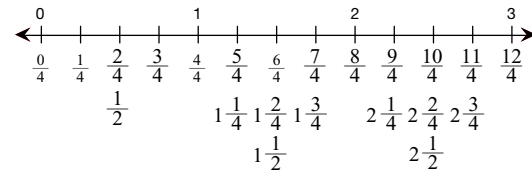
2. **A.** 12

   **B.** $\frac{1}{12}$

   **C.**



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

   **B–C.**



   **D.** * Possible response: Joe thought that the 12 marks on the line meant the line was divided into twelfths. I'd remind him that the unit whole is $\frac{4}{4}$ and that there are 3 wholes shown on the line.

### Fractions on Number Lines

Below is a rectangle divided into four equal parts. Each part is $\frac{1}{4}$ of the rectangle. Underneath is a number line from 0 to 1. It is also divided into 4 equal parts. It has $\frac{1}{4}$ at the point that is one fourth of the distance from 0 to 1. It has $\frac{2}{4}$ at the point that is $\frac{2}{4}$ of the distance from 0 to 1, and so on.



**Discuss**

**Show or tell your partner the answer to each question.**

1. Here is another number line. On a number line, the unit whole is the distance from 0 to 1.



   **A.** How many equal parts is the distance from 0 to 1 divided into?
   **B.** What is a fraction label for point A?
   **C.** Name labels for all the points.
   **D.** Find the point that is half the distance from 0 to 1. Give two fraction labels for that point.

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2. Here is another number line.



   **A.** How many equal parts is the distance from 0 to 1 divided into?
   **B.** What is a fraction label for point A?
   **C.** Find $\frac{6}{12}$ on the number line. What is another fraction for that point?

3. This is a number line from 0 to 3. The distance between each whole number is divided into fourths. The labels show the distance from 0.



   **A.** What is the unit whole?
   **B.** Some of the points have been labeled. Tell how to label the rest of this number line.
   **C.** Tell another way to label this number line with equivalent fractions. For example, the point $\frac{6}{4}$ could also be labeled $1\frac{1}{2}$.
   **D.** Joe Smart labeled the number line this way:



   What would you say to Joe to help him?

   Use the *Show Fractions on Number Lines* and *Represent Fractions* pages in the *Student Activity Book* to practice showing fractions in a variety of ways.
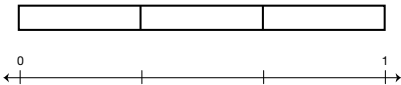
Fractions on Number Lines

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**\*Answers and/or discussion are included in the lesson.**
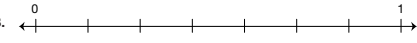
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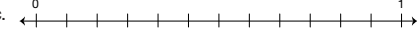
**Show Fractions on Number Lines**



**1. A.** The number line above is divided into how many equal parts? _____

**B.** Label each mark on the number line above with fractions. Find a fraction for 0 and 1, too.

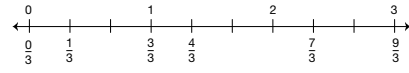**2.** Label each mark on the number lines with fractions.

**A.** 

**B.** 

**C.** 

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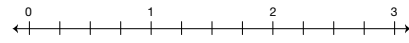
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Name _____ Date _____

**3. A.** Finish labeling this number line to show thirds from 0 to 3.



**B.** Label this number line to show fourths from 0 to 3.
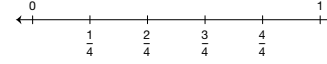


**4.** Use a centimeter ruler to find fractions on these number lines.

**A.** Halves 

**B.** Fifths 

**C.** Tenths 

**5.** Kim marked her number line for fourths like this:

Fourths 

Do you agree? Why or why not?

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**Show Fractions on Number Lines**
**(SAB pp. 45–46)**
**Questions 1–5**

**1. A.** 3

**B.** 

**2. A.** 

**B.** 
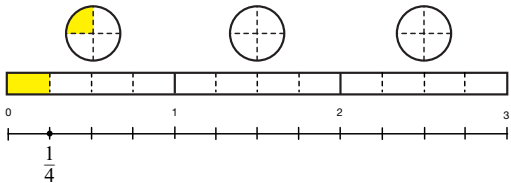
**C.** 
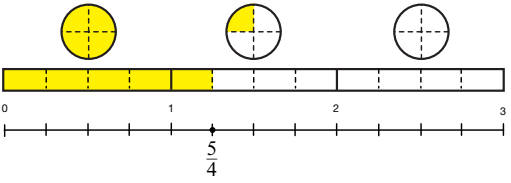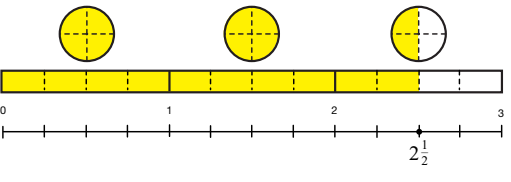
**3. A.** 

**B.** 

**4. A.** 

**B.** 

**C.** 
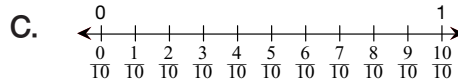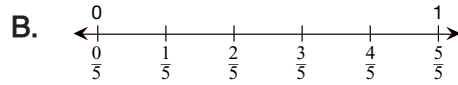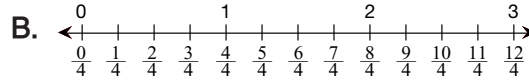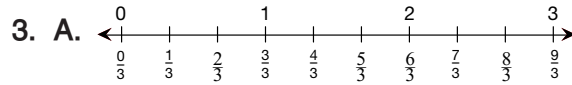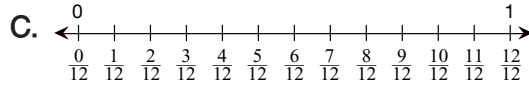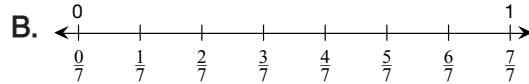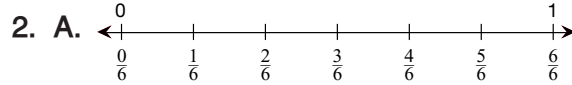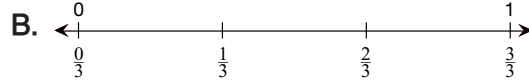
**5.*** Kim has marked her number line incorrectly. Possible response: Kim divided the number line with 4 marks to show fourths instead of dividing the line into four equal sections. She made fifths, not fourths.
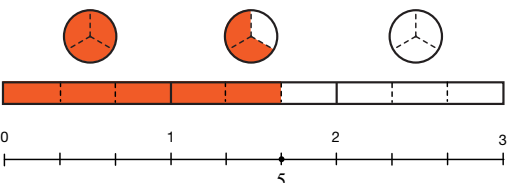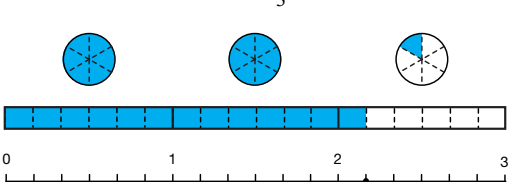
**\*Answers and/or discussion are included in the lesson.**

## Student Activity Book

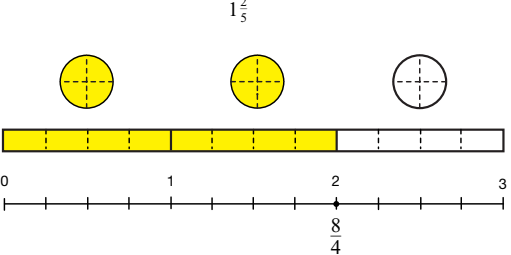### Represent Fractions (SAB pp. 47–48)
### Questions A–G

**A.**



$\frac{1}{4}$

**B.**



$\frac{5}{4}$

**C.**



$2\frac{1}{2}$

**D.**



$\frac{5}{3}$

**E.**



$2\frac{1}{6}$

**F.**



$1\frac{2}{5}$
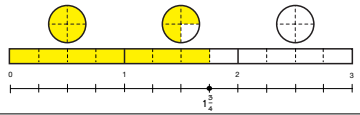
**G.**



$\frac{8}{4}$
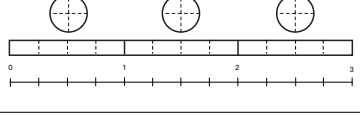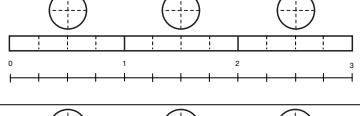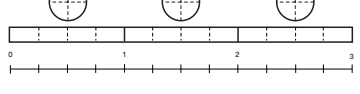
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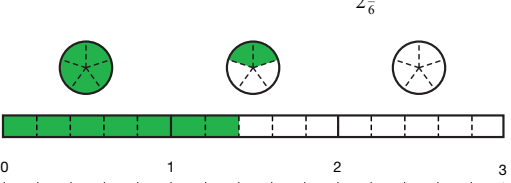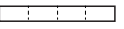
Name _____ Date _____

**Represent Fractions**

Show the given numbers with circles, rectangles, and number lines.

For circles, one circle is the unit whole:

For rectangles, this size rectangle is the unit whole:

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

| Number | Representation |
|---|---|
| **Example** $1\frac{3}{4}$ |  |
| **A.** $\frac{1}{4}$ | |
| **B.** $\frac{5}{4}$ | |
| **C.** $2\frac{1}{2}$ | |
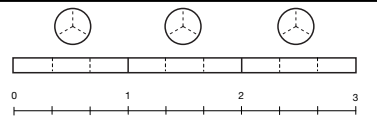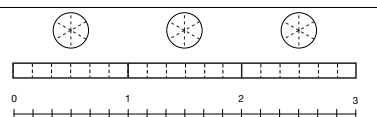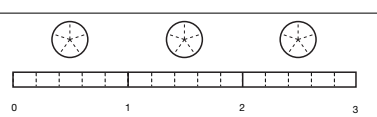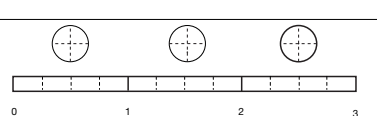
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| Number | Representation |
|---|---|
| **D.** $\frac{5}{3}$ | |
| **E.** $2\frac{1}{6}$ | |
| **F.** $1\frac{2}{5}$ | |
| **G.** $\frac{8}{4}$ | |

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