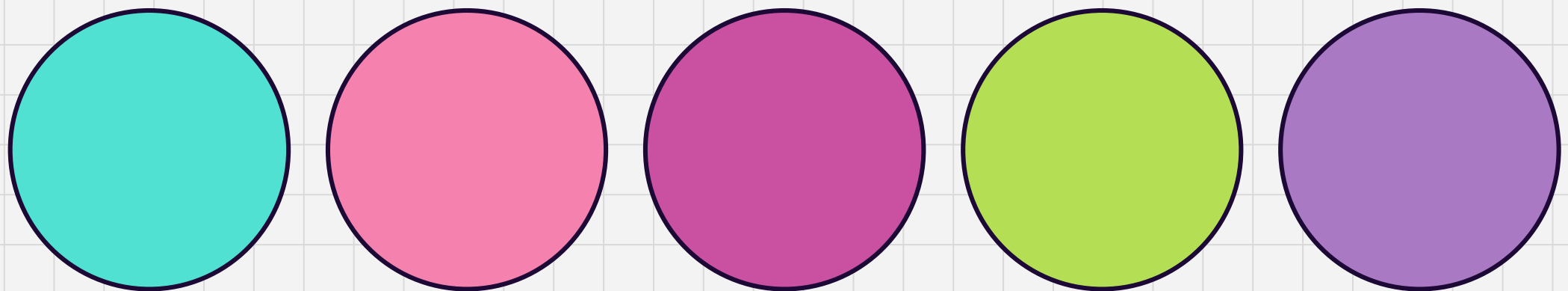# Unit 4, Module 3, Session 4

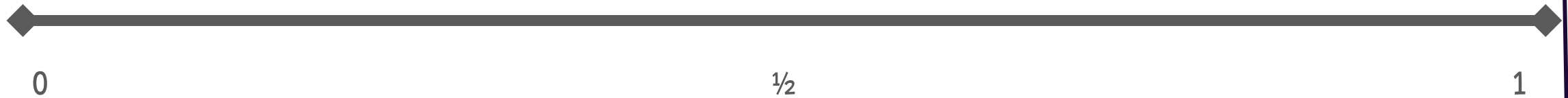## Fractions as Distances

Learning Goal:

I can place fractions on a number line.

I can use a number line to help me locate fractions.

Problems & Investigations

Today, we're going to use a number line to show fractions. Our number line is going to go from 0 to 1 whole today.

|◆━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━◆|

0   ½   1

Where would halfway across the line be located at?

Problems & Investigations

Where would ¼ belong on the number line?
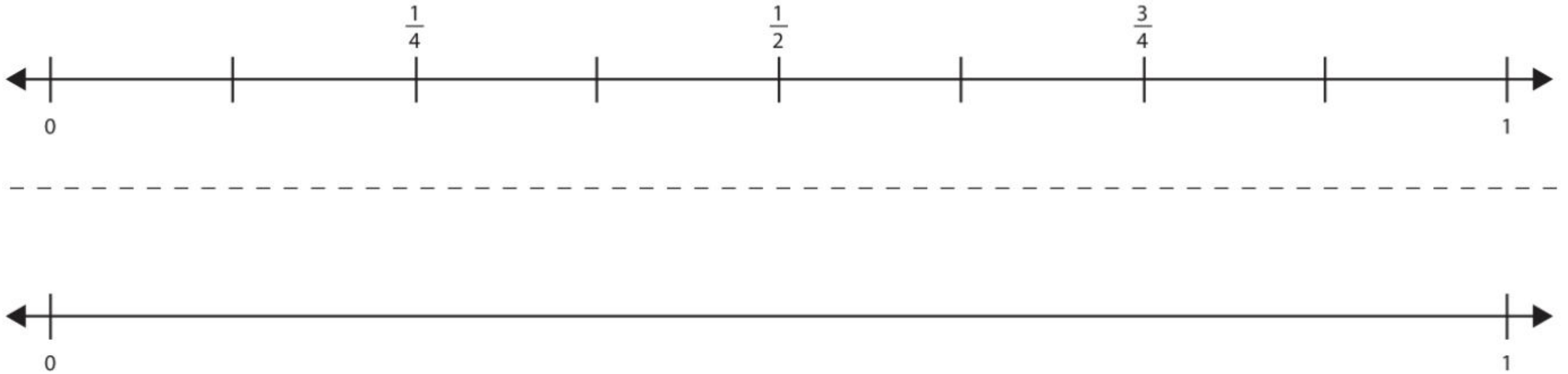
Where would ¾ belong on the number line?

Where would ⅛ belong on the number line?

What do you notice about the double number lines below?

Double Number Line

$\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$

0   1

0   1

Slide your paperclip down your number line until you get halfway. Then flip over your number line to see how close you got to ½.

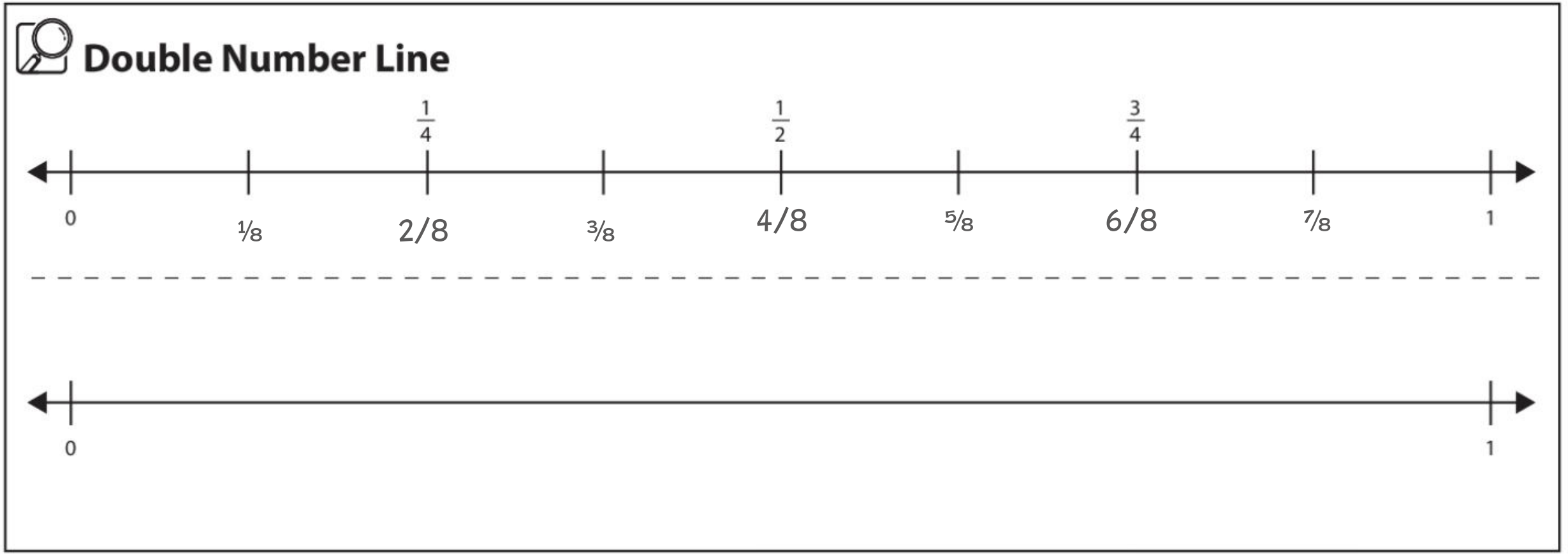What was your strategy to make it halfway through the number line?

0   1

Slide your paperclip down your number line until you get ¼ of the way. Then flip over your number line to see how close you got to ¼.

What was your strategy to make it to ¼ on the number line?

0   1

What do you think we should label the other parts of the number line? Why?

Double Number Line

$$\frac{1}{4} \qquad \frac{1}{2} \qquad \frac{3}{4}$$

0   ⅛   2/8   ⅜   4/8   ⅝   6/8   ⅞   1

0   1

Slide your paperclip down your number line until you get ¾ of the way. Then flip over your number line to see how close you got to ¾.

What was your strategy to make it to ¾ on the number line?

0   1

Slide your paperclip down your number line until you get ⅛ of the way.
Then flip over your number line to see how close you got to ⅛.

What was your strategy to make it to ⅛ on the number line?

0   1

Slide your paperclip down your number line until you get 6/8 of the way. Then flip over your number line to see how close you got to 6/8.
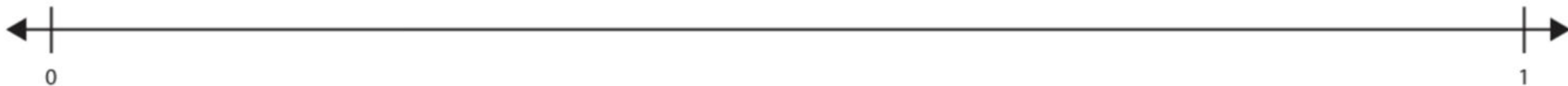
What was your strategy to make it to 6/8 on the number line?

0   1

Slide your paperclip down your number line until you get ⅜ of the way. Then flip over your number line to see how close you got to ⅜.

What was your strategy to make it to ⅜ on the number line?

0 ————————————————————————————————————— 1

Slide your paperclip down your number line until you get ¼ + ¼ of the way. Then flip over your number line to see how close you got to ¼ + ¼.

What was your strategy to make it to ¼ + ¼ on the number line?

0   1

Slide your paperclip down your number line until you get ⅛ + ⅛ of the way. Then flip over your number line to see how close you got to ⅛ + ⅛.

What was your strategy to make it to ⅛ + ⅛ on the number line?

0   1

Daily Practice

Must Do

- Student Book Page 133
- XtraMath

May Do

- 3C Round Ball Hundreds
- 3D Round & Add Hundreds
- 4A Tic-Tac-Tock
- 4B Measurement Scavenger Hunt
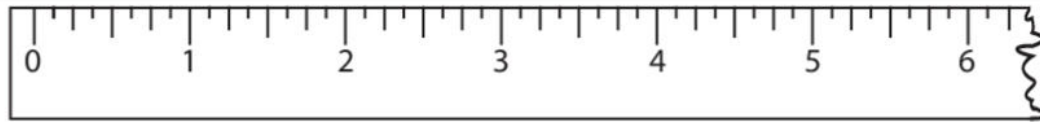- 4C Target One Thousand
- 4D Hexagon Spin & Fill

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NAME _____ | DATE _____

The Broken Ruler, Part 1

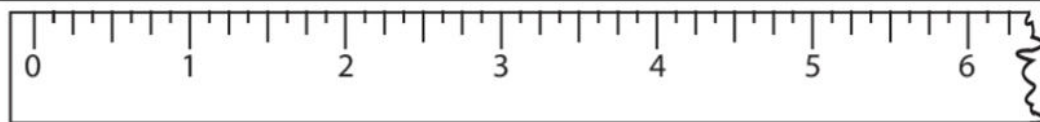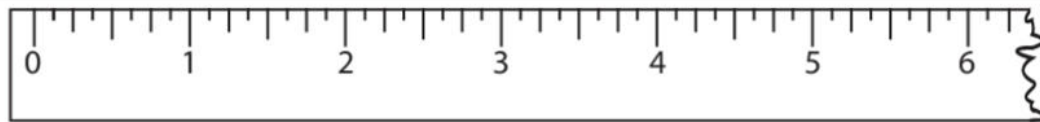**1** Find, mark, and label the measurements on the rulers below. The first one has been done for you.

ex	$4\frac{1}{2}$	(ruler marked at $4\frac{1}{2}$)
a	$3\frac{1}{2}$	(ruler)
b	$1\frac{1}{2}$	(ruler)
c	$5\frac{3}{4}$	(ruler)
d	$2\frac{1}{4}$	(ruler)
e	$4\frac{1}{4}$	(ruler)
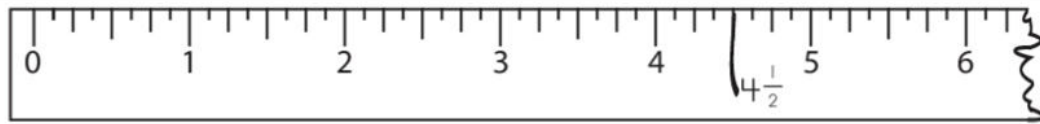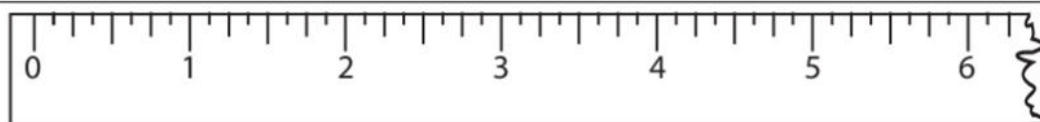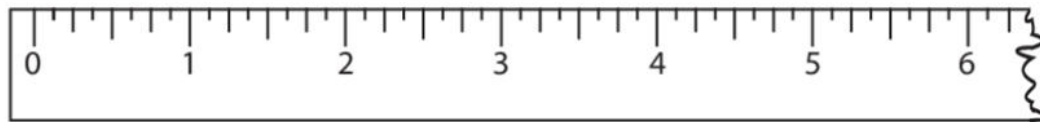
2 Share your work with a partner. Does he or she agree with each of the marks you made on the rulers? If not, decide who's correct and fix your work.

3 <u>CHALLENGE</u> What other fractions do you know? Mark and label them on this ruler.