Find the Mark

Which measurements fit a line plot marked in eighths?

5.DS.A.1.a "Create scaled data visualization (e.g. bar graphs for categorical data; line plots with fraction units of halves, fourths, and eighths for numerical data) to display data and communicate relationships or support a claim."

NAME _____ DATE _____

FITS THE SCALE

Each mark on this line plot scale is one eighth apart. A measurement fits if you can place it exactly on a mark.

Seven eighths fits at the seventh mark after 0.



MISSES THE SCALE

Some measurements fall between the eighth marks. You cannot place them exactly on this scale.

Two thirds falls between eighth marks.



1 SORT

8 items

Circle FITS or MISSES for each figure, then choose one figure from each group and explain how you knew.

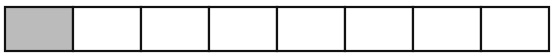
1. 

Figure 1

FITS MISSES

2. 

Figure 2

FITS MISSES

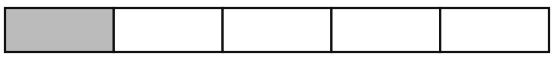
3. 

Figure 3

FITS MISSES

4. 

Figure 4

FITS MISSES

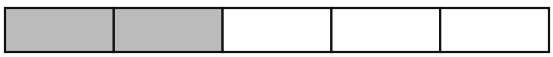
5. 

Figure 5

FITS MISSES

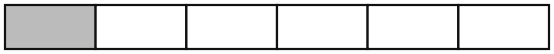
6. 

Figure 6

FITS MISSES

7. 

Figure 7

FITS MISSES

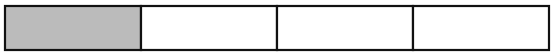
8. 

Figure 8

FITS MISSES

2 PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Draw and label two new fraction bars, one that fits the eighth-marked scale and one that misses it. Use fractions not shown above.

FITS

MISSES

CHALLENGE

Draw a line plot scale from 0 to 1 marked in eighths. Plot 2/4 and 3/6, then explain why you placed them there.

ANSWER KEY # Find the Mark

GRADE 5 · 5.DS.A.1.a

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (fractionbars)	**FITS**	One eighth lands on the first mark.
2	Figure 2 (fractionbars)	**FITS**	Three fourths equals six eighths.
3	Figure 3 (fractionbars)	**MISSES**	One fifth is not a whole number of eighths.
4	Figure 4 (fractionbars)	**FITS**	One half equals four eighths.
5	Figure 5 (fractionbars)	**MISSES**	Two fifths falls between eighth marks.
6	Figure 6 (fractionbars)	**MISSES**	One sixth is not a whole number of eighths.
7	Figure 7 (fractionbars)	**FITS**	Five eighths lands on the fifth mark.
8	Figure 8 (fractionbars)	**FITS**	One fourth equals two eighths.

PART 2 · PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **FITS**: A bar split into 8 equal parts with 3 shaded, labeled 3/8.
- **MISSES**: A bar split into 3 equal parts with 1 shaded, labeled 1/3.

Challenge: Mark the scale in eighths from 0 to 1. Place two Xs above 4/8 because 2/4 and 3/6 both equal 4/8.

Accept explanations that show the fraction is, or is not, a whole number of eighths. For the challenge, both Xs must be above the halfway mark.