Spot the Gap

Each dot shows one toy-car distance in feet.

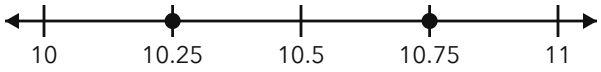
5.DS.A.1 "Ask and answer questions by collecting, organizing and summarizing data, recognizing the importance of context when analyzing data. Create scaled data visualization (e.g. bar graphs for categorical data..."

NAME _____ DATE _____

GAP IN THE DATA

Look between the leftmost and rightmost dots. If a tick between them has no dot, the data have a gap.

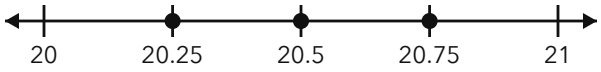
These distances have a gap at 10.5 feet.



NO GAP IN THE DATA

Every tick between the leftmost and rightmost dots has a dot. There is no gap in the data.

These distances have no gap between the first and last dots.



1 SORT

8 items

For Part 1, circle GAP or FULL for each figure; for Part 2, choose one figure from each group and explain how the dots helped you decide.

1.



Figure 1

GAP FULL

2.



Figure 2

GAP FULL

3.

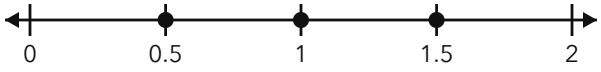


Figure 3

GAP FULL

4.

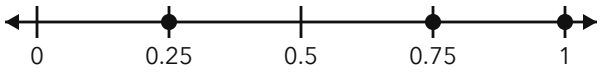


Figure 4

GAP FULL

5.



Figure 5

GAP FULL

6.



Figure 6

GAP FULL

7.

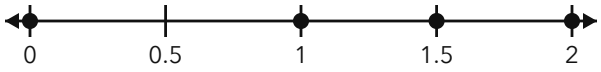


Figure 7

GAP FULL

8.



Figure 8

GAP FULL

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

Write one set of toy-car distances with a GAP and one set with no gap, labeled FULL. Use at least three distances in each set and quarter-foot ticks from 0 to 1 foot.

GAP

FULL

CHALLENGE

A class recorded toy-car distances of 0, ¼, ¾, and 1 foot. Is there a gap? Name any empty tick between the shortest and longest distances, and find the range.

ANSWER KEY

Spot the Gap

GRADE 5 · 5.DS.A.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (numberline)	**GAP**	The 0.25-foot tick is empty between the outermost dots.
2	Figure 2 (numberline)	**GAP**	The 0.25-foot tick is empty between the outermost dots.
3	Figure 3 (numberline)	**FULL**	Every half-foot tick from 0.5 to 1.5 feet has a dot.
4	Figure 4 (numberline)	**GAP**	The 0.5-foot tick is empty between the outermost dots.
5	Figure 5 (numberline)	**FULL**	Every eighth-foot tick from 0.25 to 0.625 feet has a dot.
6	Figure 6 (numberline)	**FULL**	Every quarter-foot tick from 0 to 0.75 feet has a dot.
7	Figure 7 (numberline)	**GAP**	The 0.5-foot tick is empty between the outermost dots.
8	Figure 8 (numberline)	**GAP**	The 0.625-foot tick is empty between the outermost dots.

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)

- **GAP**: 0, ½, and 1 foot.
- **FULL**: ¼, ½, and ¾ foot.

Challenge: Yes. The ½-foot tick is empty, and the range is 1 foot.

For Part 2, accept explanations that identify an empty tick between the outermost dots for GAP or state that every tick between them has a dot for FULL. Empty ticks outside the outermost dots do not count as gaps.