Measure and Sort

Read the dots and find which group has more lengths.

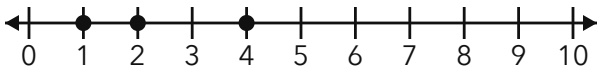
2.DS.A.1 "Ask and answer questions by collecting, organizing and summarizing data. Craft a question that can be answered by collecting categorical and numerical data. Collect and organize data using surveys, making observations, or measuring..."

NAME _____ DATE _____

MOST UNDER 5 CM

Each dot shows one measured length in centimeters. Choose SHORT when more dots show lengths under 5 cm than lengths of 5 cm or more.

The dots show 1 cm, 2 cm, and 4 cm.



MOST 5 CM OR MORE

Choose LONG when more dots show lengths of 5 cm or more than lengths under 5 cm. A dot at 5 belongs in LONG.

The dots show 5 cm, 8 cm, and 10 cm.



1 SORT

8 items

Circle SHORT or LONG for each figure, then pick two figures and explain how you knew where each belongs.

1.



Figure 1

SHORT LONG

2.

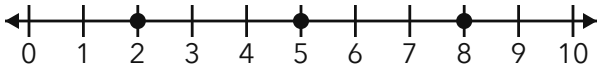


Figure 2

SHORT LONG

3.



Figure 3

SHORT LONG

4.



Figure 4

SHORT LONG

5.



Figure 5

SHORT **LONG**

6.



Figure 6

SHORT **LONG**

7.



Figure 7

SHORT **LONG**

8.



Figure 8

SHORT **LONG**

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 three new lengths from 1 to 10 cm for SHORT and three new lengths from 1 to 10 cm for LONG.

SHORT

LONG

CHALLENGE

Write four lengths from 1 to 10 cm so SHORT and LONG have equal numbers of lengths, then explain why neither group has the most.

ANSWER KEY # Measure and Sort

GRADE 2 · 2.DS.A.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (numberline)	**SHORT**	Two lengths are under 5 cm, and one is 5 cm or more.
2	Figure 2 (numberline)	**LONG**	Two lengths are 5 cm or more, and one is under 5 cm.
3	Figure 3 (numberline)	**LONG**	Two lengths are 5 cm or more, and one is under 5 cm.
4	Figure 4 (numberline)	**LONG**	All three lengths are 5 cm or more.
5	Figure 5 (numberline)	**SHORT**	Two lengths are under 5 cm, and one is 5 cm or more.
6	Figure 6 (numberline)	**SHORT**	Two lengths are under 5 cm, and one is 5 cm or more.
7	Figure 7 (numberline)	**LONG**	Two lengths are 5 cm or more, and one is under 5 cm.
8	Figure 8 (numberline)	**LONG**	Two lengths are 5 cm or more, and one is under 5 cm.

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)

- **SHORT**: 1 cm, 3 cm, 8 cm
- **LONG**: 2 cm, 6 cm, 9 cm

Challenge: 2 cm, 4 cm, 5 cm, 8 cm. Each group has two lengths, so neither group has the most.

For Part 2, accept explanations that compare the number of dots under 5 cm with the number at 5 cm or more. In Part 3, each set must have three lengths and a clear majority in its named group.