Rainfall Dot Sort

Read scaled line plots to compare rainfall with a 1-inch goal.

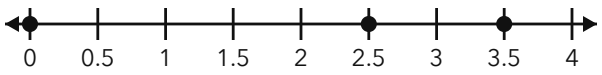
4.DS.A.1 "Ask and answer questions by collecting, organizing and summarizing data, recognizing the importance of context when analyzing data. Create scaled data visualization (e.g. bar graphs for categorical data..."

NAME _____ DATE _____

MOST AT THE GOAL

Each dot stands for one measurement. Choose this group when two or more of the three dots are at 1 inch or more.

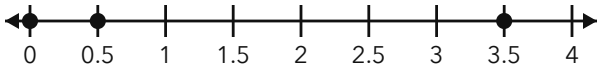
These dots show worm tunnel lengths. Two of the three tunnels measure at least 1 inch.



MOST BELOW THE GOAL

Choose this group when two or more of the three dots are less than 1 inch. A dot exactly at 1 inch is at the goal, not below it.

These dots show worm tunnel lengths. Two of the three tunnels measure less than 1 inch.



1 SORT

8 items

Each figure shows three days of rainfall in inches on a 0 to 2 number line marked by eighths; circle GOAL or BELOW for each figure, then pick two figures from different groups and explain how you knew.

1.

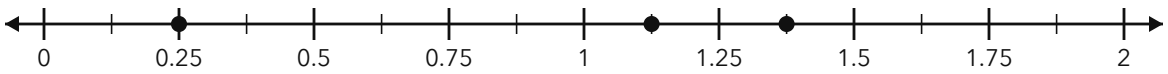


Figure 1

GOAL BELOW

2.

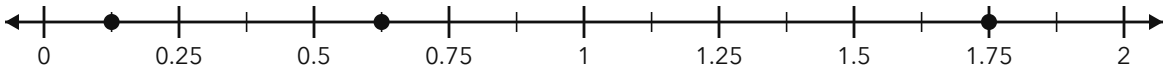


Figure 2

GOAL BELOW

3.

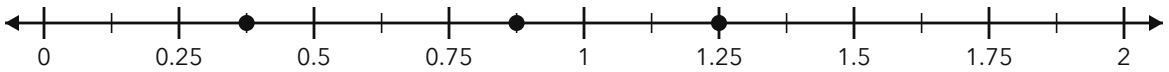


Figure 3

GOAL BELOW

4.

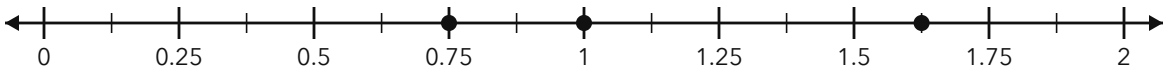


Figure 4

GOAL BELOW

5.

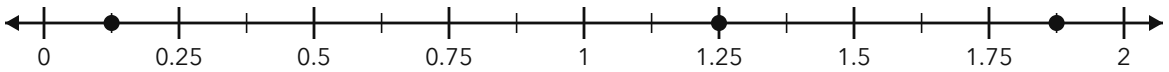


Figure 5

GOAL BELOW

6.

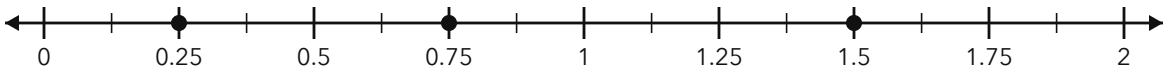


Figure 6

GOAL BELOW

7.

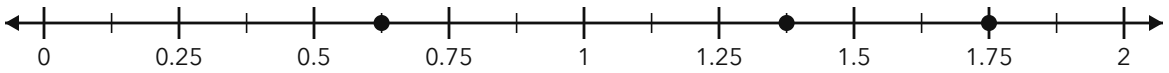


Figure 7

GOAL BELOW

8.

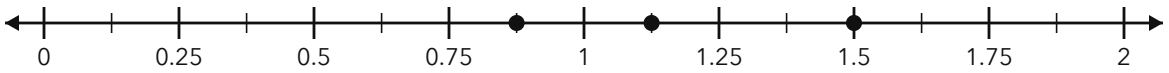


Figure 8

GOAL BELOW

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 daily rainfall amounts for GOAL and three for BELOW that you could plot on a 0 to 2 inch line plot marked by eighths; do not repeat an amount within a group.

GOAL _____

BELOW _____

CHALLENGE

Compare Figures 1 and 2: which shows more days that met the 1-inch goal, and how many more?

ANSWER KEY

Rainfall Dot Sort

GRADE 4 · 4.DS.A.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (numberline)	**GOAL**	Two of the three rainfall amounts are at least 1 inch.
2	Figure 2 (numberline)	**BELOW**	Two of the three rainfall amounts are less than 1 inch.
3	Figure 3 (numberline)	**BELOW**	Two of the three rainfall amounts are less than 1 inch.
4	Figure 4 (numberline)	**GOAL**	The dot at exactly 1 inch and the dot above it both count as meeting the goal.
5	Figure 5 (numberline)	**GOAL**	Two of the three rainfall amounts are at least 1 inch.
6	Figure 6 (numberline)	**BELOW**	Two of the three rainfall amounts are less than 1 inch.
7	Figure 7 (numberline)	**GOAL**	Two of the three rainfall amounts are at least 1 inch.
8	Figure 8 (numberline)	**GOAL**	Two of the three rainfall amounts are at least 1 inch.

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)

- **GOAL**: 3/8 inch, 1 1/8 inches, 1 3/4 inches.
- **BELOW**: 1/8 inch, 7/8 inch, 1 1/4 inches.

Challenge: Figure 1 shows two days that met the goal, while Figure 2 shows one. Figure 1 has one more day that met the goal.

Part 2 explanations should count the dots on each side of 1 inch. Accept other Part 3 amounts if each group has three distinct eighth-inch amounts from 0 to 2 inches and the majority matches its label.