LESSON MAKER PRO

Dots Tell Stories

Make and read dot plots from everyday data.

GRADE 6 · 6.SP.4

6.SP.4 "Display numerical data in plots on a number line, including dot plots, stem-and-leaf plots, histograms, and box plots."

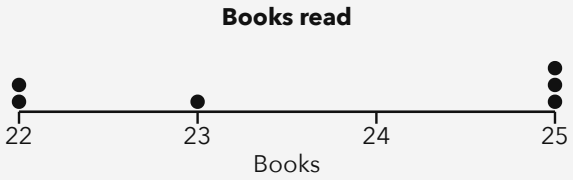
NAME _____ DATE _____

ONE DOT, ONE VALUE

A dot plot stacks one dot above each value on a number line. Each dot stands for one data value. To find the range, subtract the least value from the greatest value.

WORKED EXAMPLE

How many values are shown in the dot plot, and what is the range?

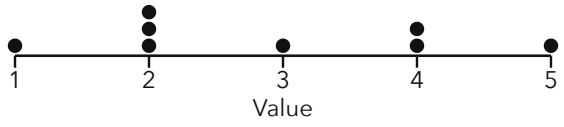


1. Count all the dots: 2 + 1 + 3 = 6.
2. Find the least and greatest values: 22 and 25.
3. Subtract to find the range: 25 - 22 = 3.

Answer: 6 values; range 3

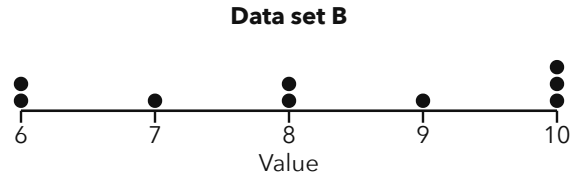
PRACTICE 6 problems

1 How many dots are above 2?



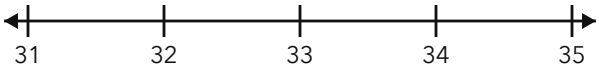
ANSWER _____

2 How many values are shown? What is the range?



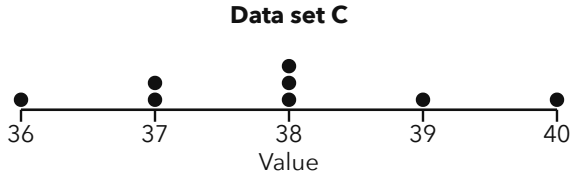
ANSWER _____

3 Plot these values above the number line, using one dot for each value: 31, 33, 31, 35, 34, 33, 33.



ANSWER _____

4 Which value appears most often? How many times does it appear?



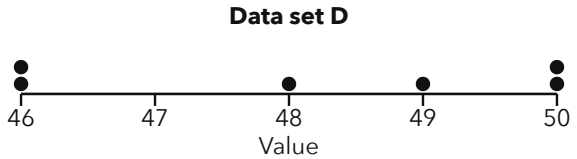
ANSWER _____

5 Plot these values above the number line: 41, 42, 42, 43, 45, 45. Which whole number from 41 to 45 has no dots?



ANSWER _____

6 A student says the range is 5 because there are five labeled values. Is the student correct? Give the range.



ANSWER _____

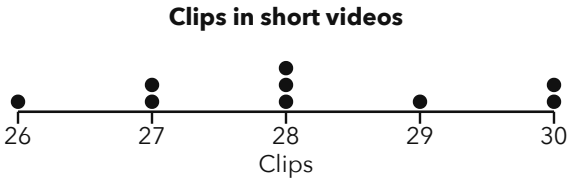
APPLY IT Show your work

1 Students timed how many minutes they took to finish a puzzle: 11, 12, 12, 13, 13, 13, 15. Make a dot plot on the number line. How many students took 13 minutes?



ANSWER _____

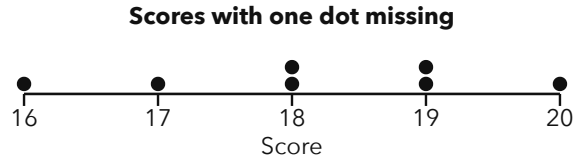
2 At a school video club, students counted the clips in their short videos. Use the dot plot to find how many students used at least 28 clips.



ANSWER _____

CHALLENGE One step up

This dot plot should show eight scores, but one dot is missing. The completed plot has 18 as its only most common score. Which score is missing? Explain how you know.



WORK SPACE AND ANSWER

ANSWER KEY

Dots Tell Stories

GRADE 6 · 6.SP.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	How many dots are above 2?	**3 dots**
2	How many values are shown? What is the range?	**9 values; range 4**
3	Plot these values above the number line, using one dot for each value: 31, 33, 31, 35, 34, 33, 33.	**31: 2 dots; 32: 0 dots; 33: 3 dots; 34: 1 dot; 35: 1 dot**
4	Which value appears most often? How many times does it appear?	**38; 3 times**
5	Plot these values above the number line: 41, 42, 42, 43, 45, 45. Which whole number from 41 to 45 has no dots?	**41: 1 dot; 42: 2 dots; 43: 1 dot; 44: 0 dots; 45: 2 dots. The number with no dots is 44.**
6	A student says the range is 5 because there are five labeled values. Is the student correct? Give the range.	**No. The range is 50 - 46 = 4.**

PART 2 · APPLY IT

1. **11: 1 dot; 12: 2 dots; 13: 3 dots; 14: 0 dots; 15: 1 dot. Three students took 13 minutes.** Count one dot for each student's time and stack dots at matching values. There are three 13s in the data.
2. **6 students** Count the dots at 28, 29, and 30: 3 + 1 + 2 = 6.

CHALLENGE

The missing score is 18. Adding its dot gives 18 three dots, more than any other score.

For drawn dot plots, accept dots stacked above the correct tick marks in the listed counts. In the challenge, an explanation must show why 18 becomes the only most common score.