

Plot Clues

Read data and make smart conclusions.

GRADE 5 • 5.PS.1.e.ii

5.PS.1.e.ii "Analyze data represented in line plots (dot plots) and stem-and-leaf plots and communicate results orally and in writing: make inferences about data represented in line plots (dot plots) and stem-and-leaf plots (e.g...."

NAME _____

DATE _____

READ THE SHAPE

Each X in a dot plot stands for one data value. In a stem-and-leaf plot, use the key to read each number. Look for the least value, greatest value, most common value, and patterns in the data.

WORKED EXAMPLE

Dot plot: 14 | XX 15 | X 16 | XXX
What is the range and the most common value?

1. The least value is 14, and the greatest value is 16.
2. Subtract: $16 - 14 = 2$.
3. The value 16 has the most Xs.

Answer: Range: 2. Most common value: 16.

PRACTICE 5 problems

- 1** Dot plot: 4 | XX 5 | XXXX 6 | X How many data values are shown?

ANSWER _____

- 2** Stem-and-leaf plot: 0 | 3 4 4 8 1 | 0 2 Key: 1 | 2 = 12 What are the least and greatest values?

ANSWER _____

- 3** Dot plot: 7 | XX 8 | XXXX 9 | X Which value is most common?

ANSWER _____

- 4** Stem-and-leaf plot: 2 | 1 3 3 5 3 | 0 0 4 Key: 2 | 1 = 21 What can you infer about every data value?

ANSWER _____

- 5** Dot plot: 1 | XX 2 | XXX 3 | XX How many more values are 2 than 1?

ANSWER _____

APPLY IT Show your work

- 1** At coding club, students finished this many games: 3 | XX 4 | XXX 5 | XX 6 | X How many students finished 4 or more games? What number of games was most common?

WORK SPACE

ANSWER _____

- 2** A class measured sunflower heights in centimeters: 1 | 1 2 3 2 | 0 0 3 8 Key: 2 | 3 = 23 What is the range? State one inference about the heights.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Two game teams recorded points. Team A 20 | XXX 21 | XX 22 | X Team B 20 | X 21 | XX 22 | XXX Which team generally scored higher? Explain using the plots.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Dot plot: 4 XX 5 XXXX 6 X How many data values are shown?	7
2	Stem-and-leaf plot: 0 3 4 4 8 1 0 2 Key: 1 2 = 12 What are the least and greatest values?	Least: 3. Greatest: 12.
3	Dot plot: 7 XX 8 XXXX 9 X Which value is most common?	8
4	Stem-and-leaf plot: 2 1 3 3 5 3 0 0 4 Key: 2 1 = 21 What can you infer about every data value?	Every data value is from 21 to 34.
5	Dot plot: 1 XX 2 XXX 3 XX How many more values are 2 than 1?	1

PART 2 • APPLY IT

- 6 students finished 4 or more games. The most common number was 4 games.** Count the Xs at 4, 5, and 6: $3 + 2 + 1 = 6$. The row for 4 has the most Xs.
- Range: 17 cm. Every sunflower measured was from 11 cm to 28 cm tall.** Subtract the least height from the greatest height: $28 - 11 = 17$. The plot shows that all heights fall between those values.

CHALLENGE

Team B generally scored higher. Team B has 3 scores of 22 and only 1 score of 20, while Team A has 1 score of 22 and 3 scores of 20.

Accept equivalent wording for inferences that correctly states the minimum and maximum values. For the challenge, accept explanations that compare the greater number of high scores for Team B.