

Read the Data

Use plots to find patterns and make predictions.

GRADE 5 • 5.PS.1.e.iv

5.PS.1.e.iv "Analyze data represented in line plots (dot plots) and stem-and-leaf plots and communicate results orally and in writing: draw conclusions about the data and make predictions based on the data to answer questions; and"

NAME _____

DATE _____

SPOT THE PATTERN

A dot plot shows each data value with a dot. A stem-and-leaf plot shows values by place value. Look for repeats, the smallest and largest values, and groups of values to make conclusions and predictions.

WORKED EXAMPLE

Key: 4|1 = 41 4 | 1 4 4 7 5 | 0 Find the mode and range. Predict a likely new value.

1. Read the values: 41, 44, 44, 47, 50.
2. 44 appears most often, so the mode is 44.
3. Range: $50 - 41 = 9$.
4. Use the mode to make a likely prediction.

Answer: Mode: 44. Range: 9. A likely new value is 44.

PRACTICE 5 problems

- 1** Books read: 2: • 3: •• 4: •••• 5: • How many students read 4 books?

ANSWER _____

- 2** Key: 0|5 = 5 0 | 5 7 7 8 1 | 0 2 What is the mode?

ANSWER _____

- 3** Key: 1|3 = 13 1 | 3 5 8 2 | 1 4 What is the range?

ANSWER _____

- 4** Jump ropes: 6: • 7: ••• 8: •• 10: • Which conclusion is supported? A. Most students have 7 or 8 jump ropes. B. Every student has 7 jump ropes. C. No student has 10 jump ropes.

ANSWER _____

- 5** Key: 3|0 = 30 3 | 0 2 3 3 5 What number is most likely to appear next?

ANSWER _____

APPLY IT Show your work

- 1** At game club, the numbers of levels completed were: 4: • 5: •• 6: •••• 7: ••. What number of levels is most likely for the next player? Explain using the plot.

WORK SPACE

ANSWER _____

- 2** A basketball group recorded free throws made: Key: 1|2 = 12 1 | 2 4 6 6 8 2 | 0 1 3 How many players made 16 or more free throws? What score is most likely for a new player?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Practice scores were: 12: • 13: •• 14: ••• 15: ••. A coach says a new score will probably be 13 or 14. Is the coach's claim supported? Explain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Books read: 2: • 3: •• 4: •••• 5: • How many students read 4 books?	4 students
2	Key: 0 5 = 5 0 5 7 7 8 1 0 2 What is the mode?	7
3	Key: 1 3 = 13 1 3 5 8 2 1 4 What is the range?	11
4	Jump ropes: 6: • 7: ••• 8: •• 10: • Which conclusion is supported? A. Most students have 7 or 8 jump ropes. B. Every student has 7 jump ropes. C. No student has 10 jump ropes.	A. Most students have 7 or 8 jump ropes.
5	Key: 3 0 = 30 3 0 2 3 3 5 What number is most likely to appear next?	33

PART 2 • APPLY IT

- 6 levels, because 6 has 4 dots, the most.** The mode is 6 because it has the most dots. Use the mode as the prediction.
- 6 players; 16 free throws.** Count 16, 16, 18, 20, 21, and 23 for 6 players. The mode, and likely prediction, is 16.

CHALLENGE

Yes. Five of the eight scores are 13 or 14.

Accept equivalent wording for conclusions and explanations when students accurately cite the data. Accept a prediction based on the mode when the student identifies the most frequent value.