

Data Detectives

Find patterns in plots.

GRADE 5 • 5.PS.1.e.iii

5.PS.1.e.iii "Analyze data represented in line plots (dot plots) and stem-and-leaf plots and communicate results orally and in writing: identify parts of the data that have special characteristics and explain the meaning of the greatest, the least..."

NAME _____

DATE _____

READ THE DATA

On a dot plot, each X stands for one data value. On a stem-and-leaf plot, use the key, then compare counts, repeats, gaps, greatest values, and least values.

WORKED EXAMPLE

Dot plot, books read: 12: X 15: XX 18: X. What are the least, greatest, and most common values?

1. The smallest value shown is 12.
2. The largest value shown is 18.
3. 15 has 2 Xs, more than any other value.

Answer: Least: 12. Greatest: 18. Most common: 15.

PRACTICE 5 problems

- 1** Dot plot: 3: XX 5: X 7: XXX. Name the least, greatest, and most common values.

ANSWER _____

- 2** Key: 5|1 = 51 5 | 1 4 6 | 0 0 3 7 | 2 How many values are in the 60s and in the 70s?

ANSWER _____

- 3** Dot plot: 1: XX 2: X 4: XX. What value is missing between 2 and 4?

ANSWER _____

- 4** Key: 8|1 = 81 8 | 1 5 9 | 0 2 2 Name the greatest value and the value that repeats.

ANSWER _____

- 5** Key: 2|1 = 21 2 | 1 1 6 3 | 0 4 4 4 | 2 Which values repeat? Compare the number of values in the 20s and 30s.

ANSWER _____

APPLY IT Show your work

- 1** At a game club, players earned these points. Key: $3|4 = 34$ $3|44|0555|13$ What are the least and greatest scores? Which tens group has more players, the 40s or the 50s?

WORK SPACE

ANSWER _____

- 2** A reading club tracked books read this month. Dot plot: 8: XX 10: XXX 14: X. How many members read 10 books? What is the difference between the greatest and least numbers read?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Two clubs recorded quiz scores. Key: $6|4 = 64$ Club A: $6|487|1198|09|35$ Club B: $6|97|088|2669|14$ Which club has more scores in the 70s? Which club has the higher greatest score? Name one repeated score.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Dot plot: 3: XX 5: X 7: XXX. Name the least, greatest, and most common values.	Least: 3. Greatest: 7. Most common: 7.
2	Key: 5 1 = 51 5 1 4 6 0 0 3 7 2 How many values are in the 60s and in the 70s?	There are 3 values in the 60s and 1 value in the 70s.
3	Dot plot: 1: XX 2: X 4: XX. What value is missing between 2 and 4?	3
4	Key: 8 1 = 81 8 1 5 9 0 2 2 Name the greatest value and the value that repeats.	Greatest: 92. Repeated value: 92.
5	Key: 2 1 = 21 2 1 1 6 3 0 4 4 4 2 Which values repeat? Compare the number of values in the 20s and 30s.	21 and 34 repeat. There are 3 values in the 20s and 3 values in the 30s.

PART 2 • APPLY IT

- 1. Least: 34. Greatest: 53. The 40s have more players, 3 compared with 2.** Read the first and last values for the least and greatest scores. Count the leaves in each stem.
- 2. 3 members read 10 books. The difference is 6 books.** Count the Xs above 10. Subtract 8 from 14.

CHALLENGE

Club A has more scores in the 70s, 3 compared with 2. Club A has the higher greatest score, 95 compared with 94. One repeated score is 71 in Club A.

Accept equivalent comparison wording, such as "the 40s have one more." For repeated values, students may name 71 in Club A or 86 in Club B for the challenge.