

Plot Power

Use data to add, subtract, and compare.

GRADE 5 • 5.PS.1.e.v

5.PS.1.e.v "Analyze data represented in line plots (dot plots) and stem-and-leaf plots and communicate results orally and in writing: solve single-step and multistep addition and subtraction problems using data from line plots (dot plots) and..."

NAME _____

DATE _____

READ THE DATA

Each dot or leaf stands for one data value. Count the dots or leaves you need, then add or subtract to answer the question. Check whether the question asks for a total, a difference, or both.

WORKED EXAMPLE

A dot plot shows the number of cards collected. 50 | •• 51 | •••• 52 |
• How many more data values are 51 than 52?

1. Count 4 dots at 51.
2. Count 1 dot at 52.
3. Subtract: $4 - 1 = 3$.

Answer: 3 more data values

PRACTICE 6 problems

- 1** A dot plot shows hours of sleep. 6 | •• 7 | ••• 8 | • How many data values are shown?

ANSWER _____

- 2** A dot plot shows goals scored. 0 | • 1 | ••• 2 | •••• How many more players scored 2 goals than 0 goals?

ANSWER _____

- 3** A dot plot shows favorite game ratings. 3 | ••• 4 | • 9 | •• How many students gave a rating of 3 or 9?

ANSWER _____

- 4** A stem-and-leaf plot has the key 1 | 2 = 12. 1 | 2 6 9 2 | 1 5 8 What is the difference between the greatest and least values?

ANSWER _____

- 5** A stem-and-leaf plot has the key 1 | 5 = 15. 1 | 5 8 2 | 0 4 7 9 3 | 2 How many values are less than 30?

ANSWER _____

- 6** A dot plot shows books read. 1 | •• 2 | ••• 3 | • 4 | •••• 5 | ••• How many more students read 4 or 5 books than 1 or 2 books?

ANSWER _____

APPLY IT Show your work

- 1** A game-design club tracked how many levels each member completed. 3 | •• 4 | ••••• 5 | •••• 6 |
••• How many more members completed 4 or 5 levels than 3 or 6 levels?

WORK SPACE

ANSWER _____

- 2** Students in a media club recorded the minutes they spent watching science videos. The key is 2 | 5 = 25 minutes. 2 | 5 8 3 | 0 3 7 9 4 | 1 4 6 How many more students watched at least 35 minutes than watched less than 35 minutes?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A coding game recorded player scores. The key is 1 | 4 = 14 points. 1 | 4 8 9 2 | 1 3 6 8 What is the difference between the total of the scores in the 20s and the total of the scores in the 10s? Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A dot plot shows hours of sleep. 6 •• 7 ••• 8 • How many data values are shown?	6 data values
2	A dot plot shows goals scored. 0 • 1 ••• 2 ••••• How many more players scored 2 goals than 0 goals?	4 more players
3	A dot plot shows favorite game ratings. 3 ••• 4 • 9 •• How many students gave a rating of 3 or 9?	5 students
4	A stem-and-leaf plot has the key 1 2 = 12. 1 2 6 9 2 1 5 8 What is the difference between the greatest and least values?	16
5	A stem-and-leaf plot has the key 1 5 = 15. 1 5 8 2 0 4 7 9 3 2 How many values are less than 30?	6 values
6	A dot plot shows books read. 1 •• 2 ••• 3 • 4 •••• 5 ••• How many more students read 4 or 5 books than 1 or 2 books?	2 more students

PART 2 • APPLY IT

- 4 more members** Add the members at 4 and 5 levels: $5 + 4 = 9$. Add the members at 3 and 6 levels: $2 + 3 = 5$, then find $9 - 5 = 4$.
- 1 more student** There are 5 values at least 35 and 4 values less than 35. Subtract $5 - 4 = 1$.

CHALLENGE

47 points. The scores in the 20s total $21 + 23 + 26 + 28 = 98$. The scores in the 10s total $14 + 18 + 19 = 51$, and $98 - 51 = 47$.

Accept equivalent wording that includes the correct number and unit. For explanations, accept any accurate method that counts each dot or leaf once and shows the needed addition and subtraction.