LESSON MAKER PRO

# Plot Power

*Add and subtract data from plots.*

**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, THEN SOLVE

Each mark in a line plot stands for one data value. Read the values carefully, then add or subtract the values the question asks for.

### WORKED EXAMPLE

The line plot shows four jump distances, in inches. What is the total distance?




1. Read the four values: 41, 44, 47, and 49.
2. Add pairs: 41 + 49 = 90 and 44 + 47 = 91.
3. Add the pair totals: 90 + 91 = 181.

**Answer: 181 inches**

## PRACTICE 6 problems

**1** Use the stem-and-leaf plot.
Key: 1 | 2 = 12.

**Stem | Leaves**
1 | 2 5 8
2 | 0 3 3 7

What is the difference between the greatest and least values?

**ANSWER** _____

**2** Use the stem-and-leaf plot.
Key: 3 | 1 = 31.

**Stem | Leaves**
3 | 0 4 4 7
4 | 1 2 5

What is the sum of the two values that are 34?

**ANSWER** _____

**3** Use the stem-and-leaf plot.
Key: 5 | 8 = 58.

**Stem | Leaves**

5 | 8 9

6 | 1 1 4

7 | 0

Find the total of all values that are 60 or greater.

**ANSWER** _____

**4** Use the stem-and-leaf plot.
Key: 4 | 2 = 42.

**Stem | Leaves**

4 | 2 6 9

5 | 1 1 3

Find the difference between the sum of the values in the 50s and the sum of the values in the 40s.

**ANSWER** _____

**5** Use the stem-and-leaf plot.
Key: 6 | 3 = 63.

**Stem | Leaves**

6 | 3 5 5

7 | 0 4

Add the two values that are 65. Then subtract 70. What is the result?

**ANSWER** _____

**6** Use the stem-and-leaf plot.
Key: 7 | 2 = 72.

**Stem | Leaves**

7 | 2 5 5

8 | 0 1 4 4

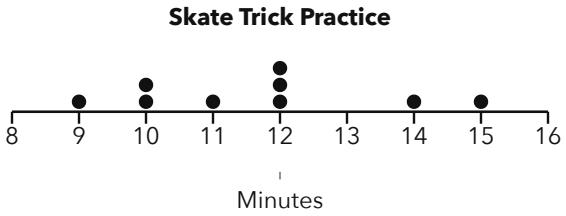
Find the total of the values in the 80s and the total of the values in the 70s. How much greater is the 80s total?

**ANSWER** _____

_____

## APPLY IT Show your work

**1** A skate club recorded how many minutes each student practiced a new trick. The club wants every student to practice for 15 minutes. How many more minutes of practice are needed altogether?




**ANSWER** _____

**2** A reading club recorded pages read during silent reading.

Key: 1 | 5 = 15 pages.

**Stem | Leaves**

1 | 5 8

2 | 0 2 2 5

3 | 1

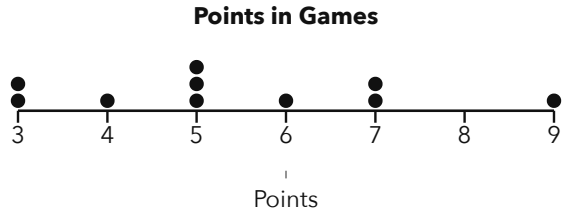
How many more pages were read by students who read 20 pages or more than by students who read fewer than 20 pages?

WORK SPACE

**ANSWER** _____

## CHALLENGE One step up

The dot plot shows the numbers of points scored in ten games. Find the difference between the total points from games with 5 or more points and the total points from games with fewer than 5 points. Explain by showing both totals.




WORK SPACE AND ANSWER

**ANSWER KEY** # Plot Power



## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | Use the stem-and-leaf plot.<br>Key: 1 \| 2 = 12.<br>**Stem \| Leaves**<br>1 \| 2 5 8<br>2 \| 0 3 3 7<br>What is the difference between the greatest and least values? | **15** |
| 2 | Use the stem-and-leaf plot.<br>Key: 3 \| 1 = 31.<br>**Stem \| Leaves**<br>3 \| 0 4 4 7<br>4 \| 1 2 5<br>What is the sum of the two values that are 34? | **68** |
| 3 | Use the stem-and-leaf plot.<br>Key: 5 \| 8 = 58.<br>**Stem \| Leaves**<br>5 \| 8 9<br>6 \| 1 1 4<br>7 \| 0<br>Find the total of all values that are 60 or greater. | **256** |
| 4 | Use the stem-and-leaf plot.<br>Key: 4 \| 2 = 42.<br>**Stem \| Leaves**<br>4 \| 2 6 9<br>5 \| 1 1 3<br>Find the difference between the sum of the values in the 50s and the sum of the values in the 40s. | **18** |
| 5 | Use the stem-and-leaf plot.<br>Key: 6 \| 3 = 63.<br>**Stem \| Leaves**<br>6 \| 3 5 5<br>7 \| 0 4<br>Add the two values that are 65. Then subtract 70. What is the result? | **60** |

| | | |
|---|---|---|
| 6 | Use the stem-and-leaf plot.<br>Key: 7 \| 2 = 72.<br>**Stem \| Leaves**<br>7 \| 2 5 5<br>8 \| 0 1 4 4<br>Find the total of the values in the 80s and the total of the values in the 70s. How much greater is the 80s total? | **80s total: 329; 70s total: 222; difference: 107** |

**PART 2 · APPLY IT**

1. **30 minutes** Subtract each plotted time from 15, then add the differences. The needed minutes are 6 + 5 + 5 + 4 + 3 + 3 + 3 + 1 + 0 = 30.
2. **87 pages** Add the values that are 20 or more to get 120. Add the values below 20 to get 33, then subtract 33 from 120.

**CHALLENGE**

**Games with 5 or more points total 44. Games with fewer than 5 points total 10. The difference is 34.**

Accept correct addition or subtraction equations that lead to the stated answers. For the challenge, accept any clear explanation that identifies totals of 44 and 10 before finding 34. Read each displayed stem row separately; each spaced leaf is one value, including repeated leaves. Use the separately printed key to interpret the stems and leaves.