

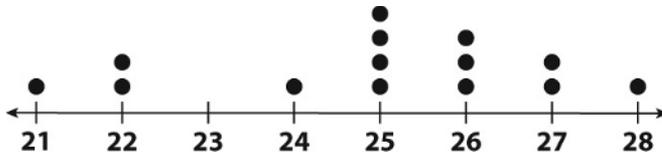
LESSON
11-1

Comparing Data Displayed in Dot Plots

Practice and Problem Solving: A/B

Find the values for each dot plot.

1.

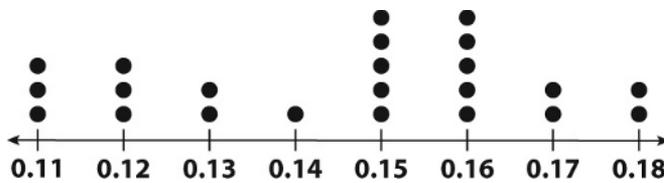


Range:

Median:

Mode:

2.

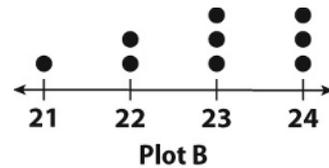
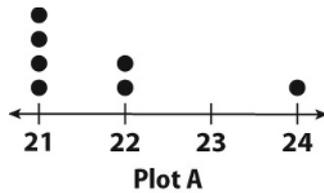


Range:

Median:

Mode:

Compare the dot plots by answering the questions.



3. How do the ranges compare?

4. Compare the number of elements.

5. How do the modes compare?

6. How do the medians compare?

7. Describe the distribution of the dots in each plot.

- Population: all schools in the system;
Sample: different numbers of schools in each of three categories. It is not stated why the system's schools are separated into these categories, even though it is sensible. It is not stated why 10, 5, and 5 schools in each category were selected, or if they were randomly selected.

MODULE 11 Analyzing and Comparing Data

LESSON 11-1

Practice and Problem Solving: A/B

- 7; 25; 25
- 0.07; 0.15; 0.15 and 0.16 (bi-modal distribution)
- Both are 3.
- Plot A has 7 dots; plot B has 9 dots.
- Plot A's mode is 21; plot B's mode is 23 and 24 (bi-modal).
- Plot A's median is 21; plot B's median is 23.
- Plot A is skewed to the left so its central measures are shifted toward the lower values. Plot B is skewed to the right so its central measures are shifted toward the higher values.

Practice and Problem Solving: C

- The median is 21 pounds, the mode is 22 pounds, and the range is 9 pounds.
- By both central measures median and mode, each shearing does not produce the 25 pounds he needs.
- The median is 25 pounds, but the mode is 24 pounds. The range is 9 pounds.
- The distribution is "almost" bi-modal with 24 and 27 pounds. Because of this and the fact that the median is 25 pounds, the rancher should feel confident that he is very close to the 25 pound target. If he needs more data, he could sample a larger population to see how its measures compare to the 50-animal sample.

Practice and Problem Solving: D

- 15
- 15

- 15
- Plot Y; Plot X range is $13 - 11 = 2$. Plot Y range is $42 - 6 = 36$
- Plot X; 4 values of 11
- 11
- 30

Reteach

- Answers will vary. The data are not symmetric about the center. The distribution is skewed slightly to the right. The mode is 6, the median is 6, and the range is 10.

Reading Strategies

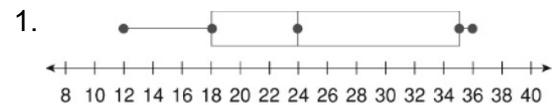
- Mean: 6.9; median: 7; mode: 7
- Mean: 7.3; median: 7; mode: 7

Success for English Learners

- If there are 12 dots, the median is the average of the 6th and 7th dots' values.
- There would be two modes, "1" and "3."

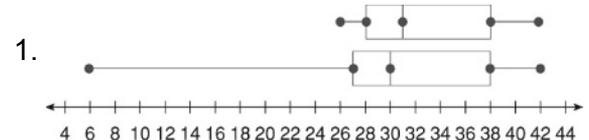
LESSON 11-2

Practice and Problem Solving: A/B



- Amy
- Ed
- Ed
- Amy; The range and interquartile range are smaller for Amy than for Ed, so Amy's test scores are more predictable.
- Port Eagle
- Port Eagle
- Surfside; The interquartile range is smaller for Surfside than for Port Eagle, so Surfside's room prices are more predictable.

Practice and Problem Solving: C



- It increases the interquartile range by 1.
- The range is more affected since the difference is 16.