Unit 1 Lesson 15: Comparing Data Sets

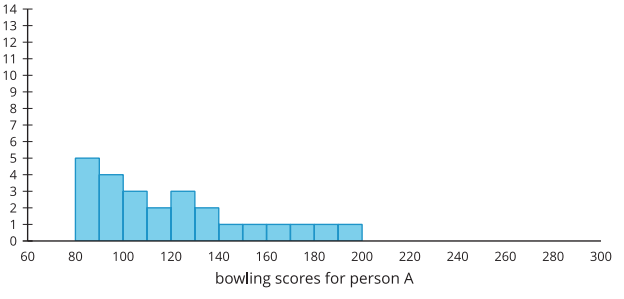
1 Bowling Partners (Warm up)

Student Task Statement

Each histogram shows the bowling scores for the last 25 games played by each person. Choose 2 of these people to join your bowling team. Explain your reasoning.

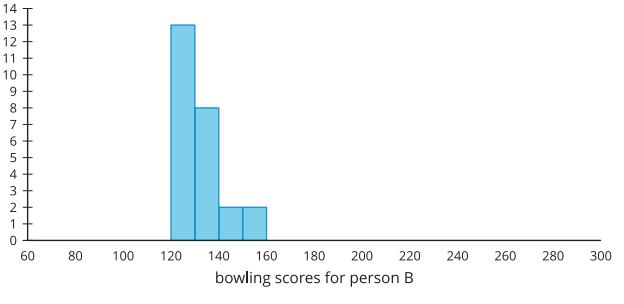
Person A

- mean: 118.96
- median: 111
- standard deviation: 32.96
- interquartile range: 44



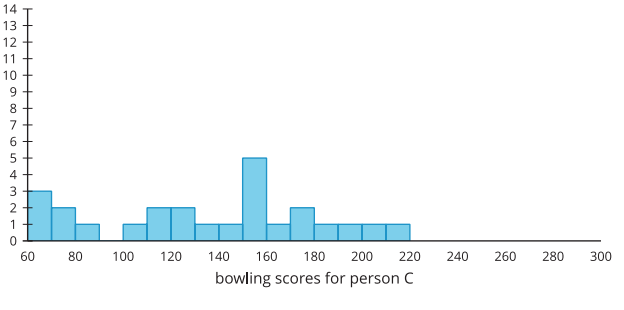
Person B

- mean: 131.08
- median: 129
- standard deviation: 8.64
- interquartile range: 8



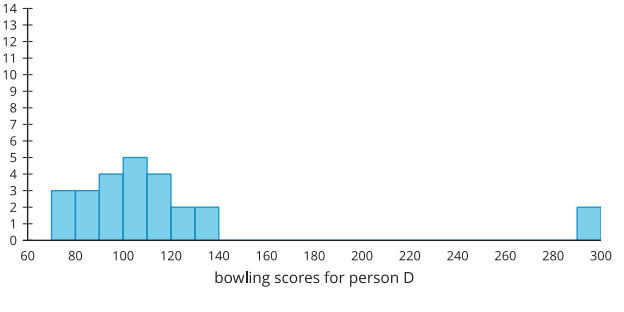
Person C

- mean: 133.92
- median: 145
- standard deviation: 45.04
- interquartile range: 74



Person D

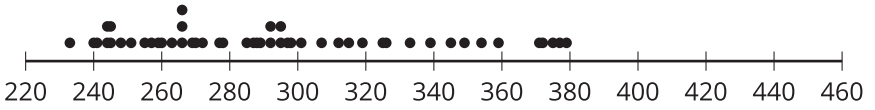
- mean: 116.56
- median: 103
- standard deviation: 56.22
- interquartile range: 31.5



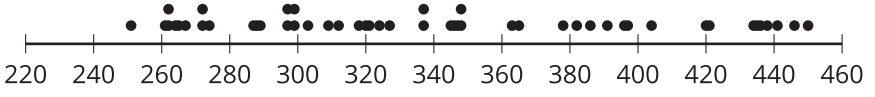
2 Comparing Marathon Times

Student Task Statement

All of the marathon runners from each of two different age groups have their finishing times represented in the dot plot.



ages 30 – 39 marathon finish times (minutes)



ages 40 – 49 marathon finish times (minutes)

1. Which age group tends to take longer to run the marathon? Explain your reasoning.
2. Which age group has more variable finish times? Explain your reasoning.

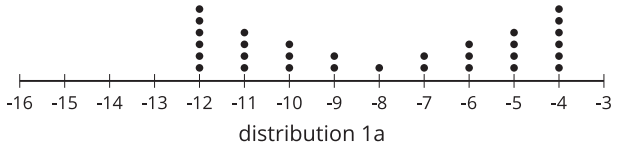
3 Comparing Measures

Student Task Statement

For each group of data sets,

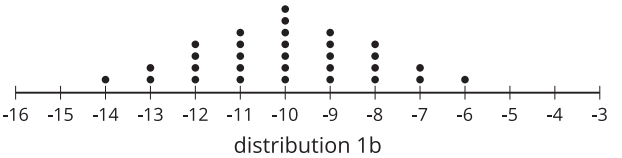
- Determine the best measure of center and measure of variability to use based on the shape of the distribution.
- Determine which set has the greatest measure of center.
- Determine which set has the greatest measure of variability.
- Be prepared to explain your reasoning.

1a



distribution 1a

1b

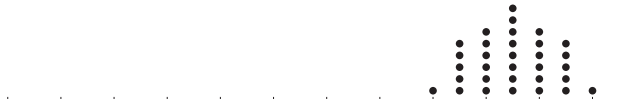


distribution 1b

2a

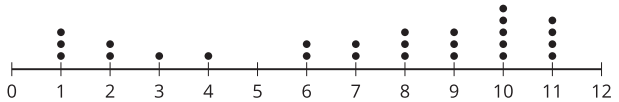
distribution 2a

2b



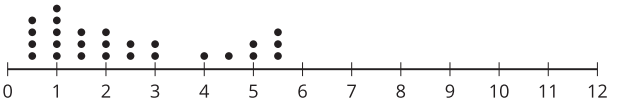
distribution 2b

3a



distribution 3a

3b

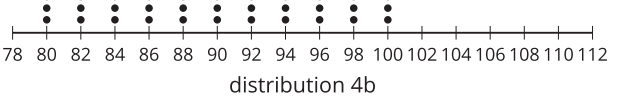


distribution 3b

4a

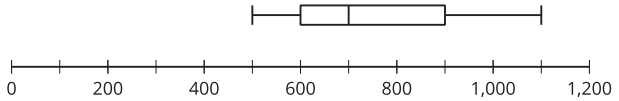
distribution 4a

4b



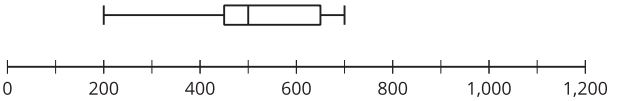
distribution 4b

5a



distribution 5a

5b



distribution 5b

6a

A political podcast has mostly reviews that either love the podcast or hate it.

6b

A cooking podcast has reviews that neither hate nor love the podcast.

7a

Stress testing concrete from site A has all 12 samples break at 450 pounds per square inch (psi).

7b

Stress testing concrete from site B has samples break every 10 psi starting at 450 psi until the last core is broken at 560 psi.

7c

Stress testing concrete from site C has 6 samples break at 430 psi and the other 6 break at 460 psi.