How Far Can You Throw? (6.8.D.15.4)

Illustrative Mathematics

15.4: How Far Can You Throw?

Diego wondered how far sixth-grade students could throw a ball. He decided to collect data to find out. He asked 10 friends to throw a ball as far as they could and measured the distance from the starting line to where the ball landed. The table shows the distances he recorded in feet.

40	76	40	63	47	57	49	55	50	53

1. Find the median and IQR of the data set.
2. On a later day, he asked the same group of 10 friends to throw a ball again and collected another set of data. The median of the second data set is 49 feet, and the IQR is 6 feet.

   - Did the 10 friends, as a group, perform better (or throw farther) in the second round compared to the first round? Explain how you know.
   - Were the distances in the second data set more variable or less variable compared to those in the first round? Explain how you know.