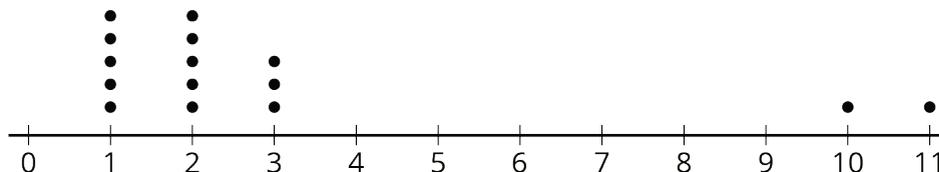


Lesson 15 Practice Problems

1. A random sample of 15 items were selected.



For this data set, is the mean or median a better measure of center? Explain your reasoning.

2. A video game developer wants to know how long it takes people to finish playing their new game. They surveyed a random sample of 13 players and asked how long it took them (in minutes).

1,235 952 457 1,486 1,759 1,148 548 1,037
 1,864 1,245 976 866 1,431

a. Estimate the median time it will take *all* players to finish this game.

b. Find the interquartile range for this sample.

3. Han and Priya want to know the mean height of the 30 students in their dance class. They each select a random sample of 5 students.

- The mean height for Han's sample is 59 inches.
- The mean height for Priya's sample is 61 inches.

Does it surprise you that the two sample means are different? Are the population means different? Explain your reasoning.

4. Clare and Priya each took a random sample of 25 students at their school.

- Clare asked each student in her sample how much time they spend doing homework each night. The sample mean was 1.2 hours and the MAD was 0.6 hours.
- Priya asked each student in her sample how much time they spend watching TV each night. The sample mean was 2 hours and the MAD was 1.3 hours.

a. At their school, do you think there is more variability in how much time students spend doing homework or watching TV? Explain your reasoning.

b. Clare estimates the students at her school spend an average of 1.2 hours each night doing homework. Priya estimates the students at her school spend an average of 2 hours each night watching TV. Which of these two estimates is likely to be closer to the actual mean value for all the students at their school? Explain your reasoning.