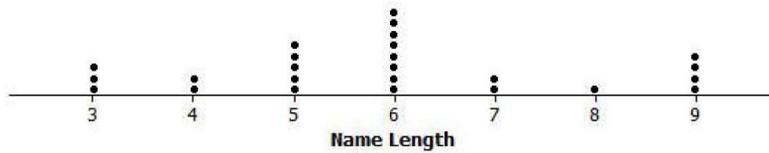


Name _____

Date _____

Displaying a Data Distribution

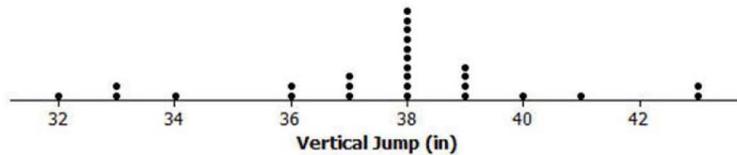
A 6th grade class collected data on the number of letters in the first names of all the students in class. Here is the dot plot of the data they collected:



1. How many students are in the class?
2. What is the shortest name length?
3. What is the longest name length?
4. What is the most common name length?
5. What name length describes the center of the data?

1. The dot plot below shows the vertical jump of some NBA players. A vertical jump is how high a player can jump from a standstill.

Dot Plot of Vertical Jump



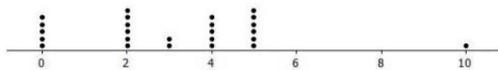
- What statistical question do you think could be answered using these data?
- What was the highest vertical jump by a player?
- What was the lowest vertical jump by a player?
- What is the most common vertical jump?
- How many players jumped that high?
- How many players jumped higher than 40 inches?
- Another NBA player jumped 33 inches. Add a dot for this player on the dot plot. How does this player compare with the other players?

2. Listed are two statistical questions and two different dot plots of data collected to answer these questions. Match each statistical question with its dot plot. Explain each of your choices.

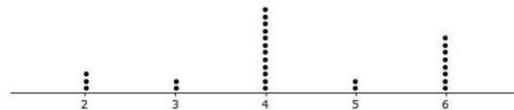
Statistical questions:

- What is the number fish (if any) that students in class have in an aquarium at their home?
- How many pockets do the 6th graders have in the pants that they are wearing at school on a particular day?

Dot Plot A



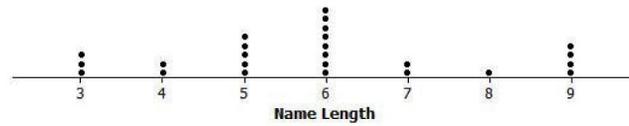
Dot Plot B



3. Read each of the following statistical questions. Write a description of what the dot plot of the data collected to answer the question might look like. Your description should include a description of the spread of the data and the center of the data.

- What is the number of hours 6th grade students are in school during a typical school day?
- What is the number of video games owned by the 6th graders in our class?

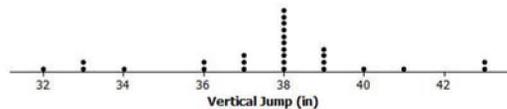
A 6th grade class collected data on the number of letters in the first names of all the students in class. Here is the dot plot of the data they collected:



- How many students are in the class?
25
- What is the shortest name length?
3 letters
- What is the longest name length?
9 letters
- What is the most common name length?
6 letters
- What name length describes the center of the data?
6 letters

- The dot plot below shows the vertical jump of some NBA players. A vertical jump is how high a player can jump from a standstill.

Dot Plot of Vertical Jump



- What statistical question do you think could be answered using these data?
What is the vertical jump of NBA players?
- What was the highest vertical jump by a player?
43 inches

c. What was the lowest vertical jump by a player?

32 inches

d. What is the most common vertical jump?

38 inches

e. How many players jumped that high?

10

f. How many players jumped higher than 40 inches?

3

g. Another NBA player jumped 33 inches. Add a dot for this player on the dot plot. How does this player compare with the other players?

This player jumped the same as two other players and jumped higher than only one player.

2. Listed are two statistical questions and two different dot plots of data collected to answer these questions. Match each statistical question with its dot plot. Explain each of your choices.

Statistical questions:

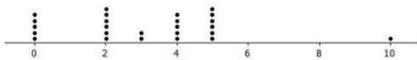
a. What is the number of fish (if any) that students in class have in an aquarium at their home?

A; some students may not have any fish (0 from the dot plot) while another student has 10 fish.

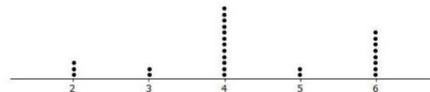
b. How many pockets do the 6th graders have in the pants that they are wearing at school on a particular day?

B; the dot plot displays the values 2, 3, 4, 5, 6, which are all reasonable within the context of the question. Pants generally have at least 2 pockets.

Dot Plot A



Dot Plot B



3. Read each of the following statistical questions. Write a description of what the dot plot of the data collected to answer the question might look like. Your description should include a description of the spread of the data and the center of the data.

a. What is the number of hours 6th grade students are in school during a typical school day?

Most students are in school for the same number of hours. Differences may exist for those students who travel or participate in a club or afterschool activity. Students' responses vary based on their estimate of the number of hours students spend in school.

b. What is the number of video games owned by the 6th graders in our class?

These data would have a very big spread. Some students might have no video games, while others could have a large number of games. A typical value of 5 (or something similar) would identify a center. In this case, the center is based on the number most commonly reported by students.