Math Virtual Learning

6th Grade Math

Understand and analyze dot plots

May 7, 2020

6th Grade Math
Lesson: May 7, 2020

Objective/Learning Target:
Students will represent and interpret data using dot plots.

Daily Warm-up

Sort these questions into the categories of statistical and non-statistical questions.

A. What fraction of the people in your school wear glasses?	B. How many centimeters tall is the door of your classroom?	C. What percentage of students in your class say they like dogs better than cats?
D. What is the average age of teachers at your school?	E. What do students in your class prefer to have on a hotdog: ketchup, mustard, both ketchup and mustard, or neither?	F. What is a typical number of students per class in your school?
G. Who is the current Vice President of the United States?	H. How old is the principal at your school?	I. What is the most common favorite color for the students in your class?
J. Do students at your school generally get more sleep on school nights than on weekends and holidays?	K. Who is the oldest staff member at the school?	L. What day of the week is today?

Daily Warm-up Answers

Statistical

A,C, D, E, F, I, J, K

Non-Statistical

B, G, H, L

Lesson Video

[Khan Lesson](#)

Practice

Shanna wants to know if basketball players on a men's team and a women's team have had prior experience in international competitions. She gathered data on the number of times the players were on a team before 2016.

Fill in the frequency table and create a dot plot for the data above.

men's team	3	0	0	0	0	1	0	0	0	0	0	0
women's team	2	3	3	1	0	2	0	1	1	0	3	1

Men's Basketball Team Players

number of prior competitions	frequency (number)
0	
1	
2	
3	
4	

Women's Basketball Team Players

number of prior competitions	frequency (number)
0	
1	
2	
3	
4	

Men's Basketball Team Players

0   1   2   3   4
number of prior competitions

Women's Basketball Team Players

0   1   2   3   4
number of prior competitions
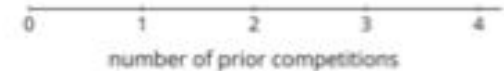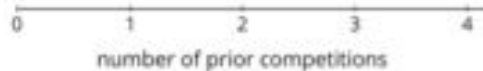
Practice Answers

Shanna wants to know if basketball players on a men's team and a women's team have had prior experience in international competitions. She gathered data on the number of times the players were on a team before 2016.
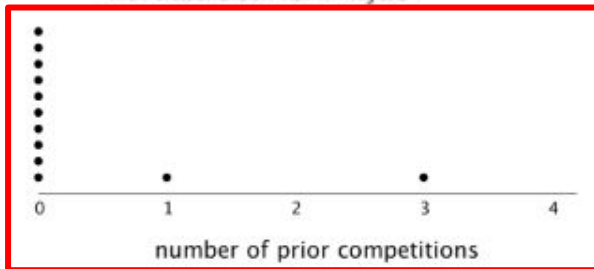
Fill in the frequency table and create a dot plot for the data above.

men's team	3	0	0	0	0	1	0	0	0	0	0	0
women's team	2	3	3	1	0	2	0	1	1	0	3	1

Men's Basketball Team Players

number of prior competitions	frequency (number)
0	10
1	1
2	0
3	1
4	0

Women's Basketball Team Players

number of prior competitions	frequency (number)
0	3
1	4
2	2
3	3
4	0

Men's Basketball Team Players

number of prior competitions

Women's Basketball Team Players

number of prior competitions
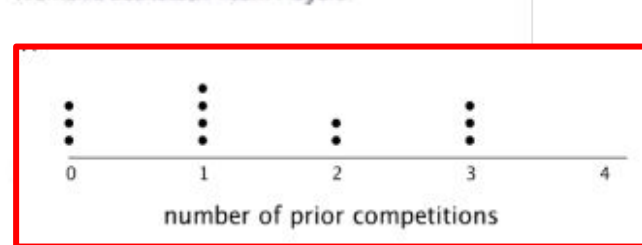
Practice

Twenty-five sixth-grade students were asked to estimate how many hours a week they spend on their phone.

hours on the phone per week
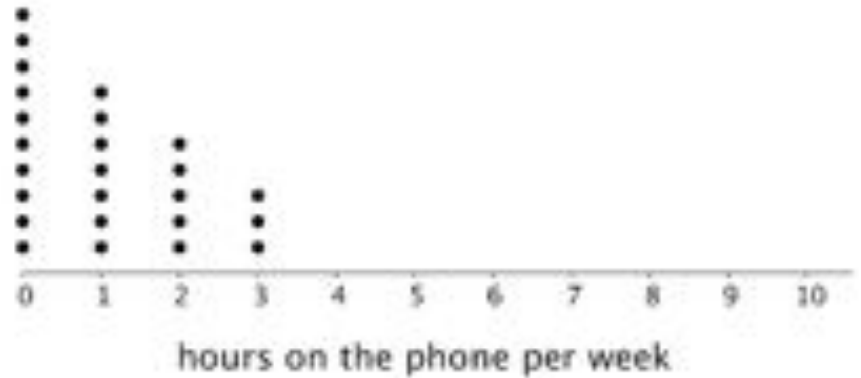
1. _____ students reported not talking on the phone during the week, which is _____%.
2. _____ is the greatest number of hours a student spent talking on the phone per week, which is _____%.
3. Based on this graph, students typically spend _____ hours talking on the phone.
4. I would describe the spread of data as….

Practice Answers

Twenty-five sixth-grade students were asked to estimate how many hours a week they spend on their phone.

hours on the phone per week
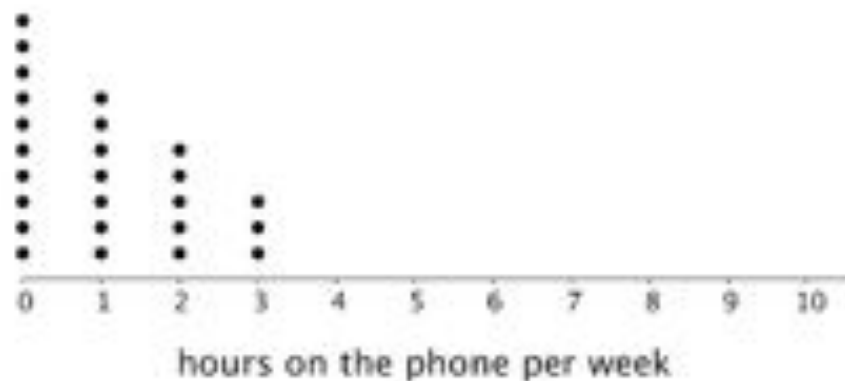
1. __10__ students reported not talking on the phone during the week, which is __40__%.

2. __3__ is the greatest number of hours a student spent talking on the phone per week, which is __12__%.

3. Based on this graph, students typically spend __1__ hours talking on the phone.
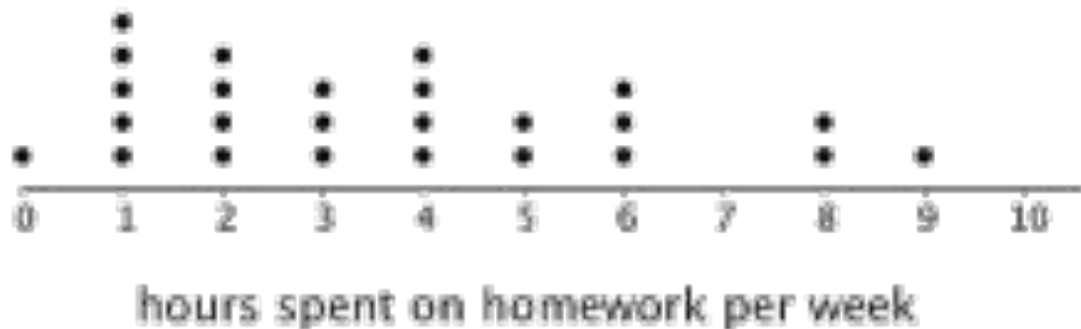
4. I would describe the spread of data as…. **Clumped together with low variability.**

Practice

hours spent on homework per week

Twenty-five sixth-grade students answered the question:
"How many hours do you generally spend on homework each week?"

1. This dot plot shows the number of hours per week that these _____ students reported spending homework.

2. The percentage of students that reported spending 1 hour on homework each week was _____.

3. The percentage of students that reported spending 4 or more hours on homework each week was _____.

4. Which number would be a good description of the number of hours this group of students spent on homework? Explain...

Practice Answers

1. This dot plot shows the number of hours per week that these **25** students reported spending homework.

2. The percentage of students that reported spending 1 hour on homework each week was **25% (5/25)**.

3. The percentage of students that reported spending 4 or more hours on homework each week was **60%**.

4. Which number would be a good description of the number of hours this group of students spent on homework? Explain...

I would say that a good estimate would be around 3-4 hours, which is the middle of the set, with about the same number of values above and below.

Summary/Reflection

How can we compare two data sets, represented as a dot plot?

Additional Practice:

Click on the link below to get additional practice and to check your understanding!

Practice:

Khan Academy: Dot Plot

Illustrative Math Practice Problems