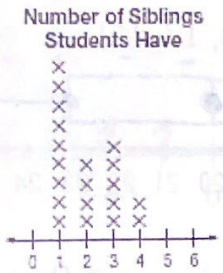
Name Key _____ Date Due _____

6th Grade MATH STUDY GUIDE Ch12 Statistical Displays

Complete the work inside the boxes under the problem. Circle your answer.



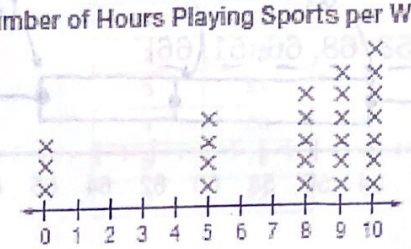
1. a. How many students have 2 siblings? (4) ~~students~~ siblings

b. What is the mode of the data? Highest point is (1) sibling

c. What is the median number of siblings students have? 1,1,1,1,1,1,1,1,1,1,2|2,2,2,3,3,3,3,3,4,4 (2) split into 10 each side.

d. Write a sentence describing the data.

More students have 1 sibling than any other number. Generally, the higher the number of siblings, the fewer the students.



2. a. Mean = $\frac{0+0+0+5+5+5+5+8+8+8+8+8+9+9+9+9+9+10+10+10+10+10+10}{25} = \frac{184}{25} = 7.36$

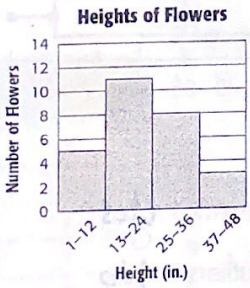
b. Median = 0,0,0,5,5,5,5,8,8,8,8,8,(9),9,9,9,9,9,10,10,10,10,10,10,10

c. Mode = Highest point = (10)

d. Describe the data.

Most of the students play sports ~~practice~~ 8, 9, or 10 hours per week.

Only 3 people don't play any sports.



3 a. Which interval represents the least number of flowers? (37-48 inches)

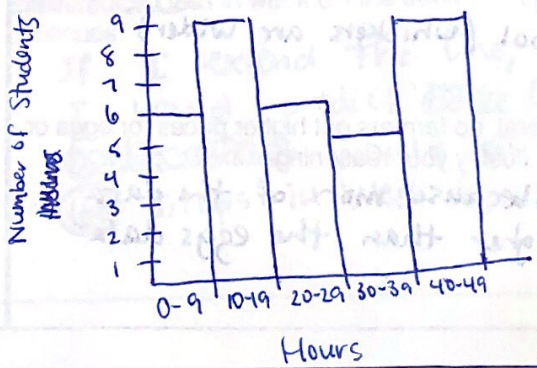
b. Which interval has 5 flowers? (1-12 inches)

c. How many flowers are 24 inches tall or shorter? 5 + 11 = (16) flowers

d. How many flowers are at least 37 inches tall? (3) flowers are 37-48 inches tall.

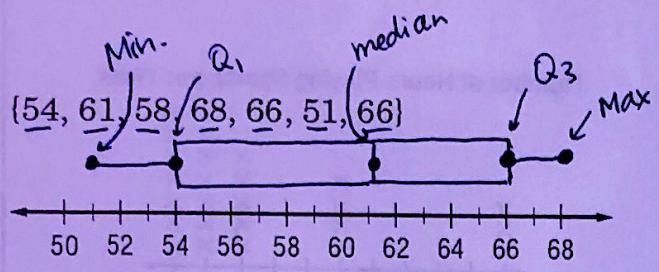
Hours Volunteered by Students		
Hours	Tally	Frequency
0–9	𝍸 |	6
10–19	𝍸 𝍸	9
20–29	𝍸 |	6
30–39	𝍸	5
40–49	𝍸 𝍸	9

4. Create a histogram using the above data.



5. Make a box and whisker plot for the data.

{54, 61, 58, 68, 66, 51, 66}



Find median: Put in order first.

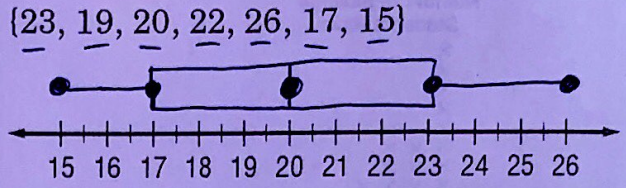
51, 54, 58, 61, 66, 66, 68

Find quartiles. Q1 = 54, median = 61, Q3 = 66

Minimum = 51
Maximum = 68

6. Make a box and whisker plot for the data.

{23, 19, 20, 22, 26, 17, 15}



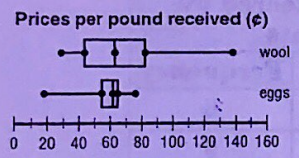
Find median: Put in order first.

15, 17, 19, 20, 22, 23, 26

Find quartiles Q1 = 17, median = 20, Q3 = 23

Minimum = 15
Maximum = 26

PRODUCTS Use the box plot that shows the average prices in cents per pound farmers received for eggs and wool.



7. a. How do the median egg prices and the median wool prices compare?

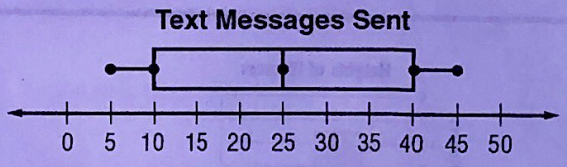
The median prices are about the same.

b. Do eggs or wool prices show the greatest spread of data?

Wool (whiskers are wider)

c. In general, do farmers get higher prices for eggs or wool? Justify your reasoning.

Wool, because more of the data is higher than the eggs data.



8. a. Is the data symmetric? Yes

b. Are there any outliers? No

c. Are there any gaps? Don't know/can't tell

d. What is the mode? Don't know/can't tell

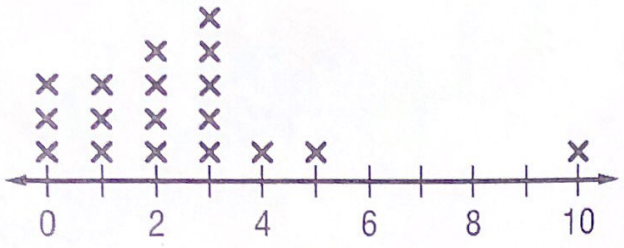
e. Should we use mean or median to describe the data? Why?

Mean, because data is symmetric and no outliers

Describe the data.

The # of text messages range from 5 to 45. Half of the # of messages were less than 25 and half were more than 25. The data is pretty evenly spread out.

Number of Television Sets



9. a. Is the data symmetric? No

b. Are there any outliers? Yes → 10

c. Are there any gaps? Yes → 6, 7, 8, 9

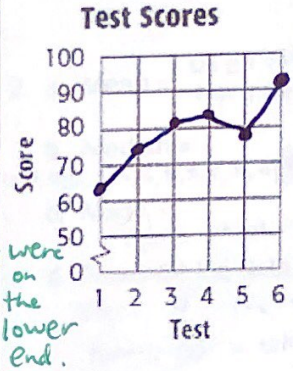
d. What is the mode? 3

e. Should we use mean or median to describe the data? Why? Median, because not symmetric and there is an outlier

C. Describe the data. Half of the TV sets was less than 2, and half was more than 2. The data was not evenly spread -- more numbers were on the lower end.

10. Make a line graph of the data. Then describe the change in the test scores from Test 1 to Test 6.

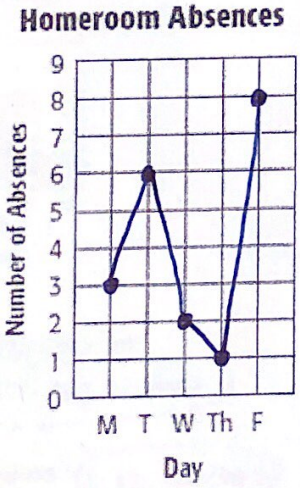
Test Scores	
Test	Score
1	62
2	75
3	81
4	83
5	78
6	92



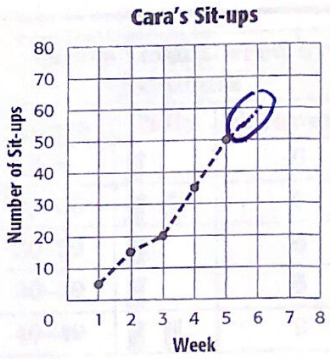
In general, test scores increased.

11. Make a line graph of the data. Then describe the change in homeroom absences throughout the week.

Homeroom Absences	
Day	Absences
Monday	3
Tuesday	6
Wednesday	2
Thursday	1
Friday	8



Absences decreased in the middle of the week, but there was a big jump in absences on Friday.



12. Predict how many sit-ups Cara will do in the aerobics class in week 6 if the trend continues.

If I extend the line, I would predict Cara would do about (60) situps in Week 6.