Quiz 3 Review—Data Display

Name: Key

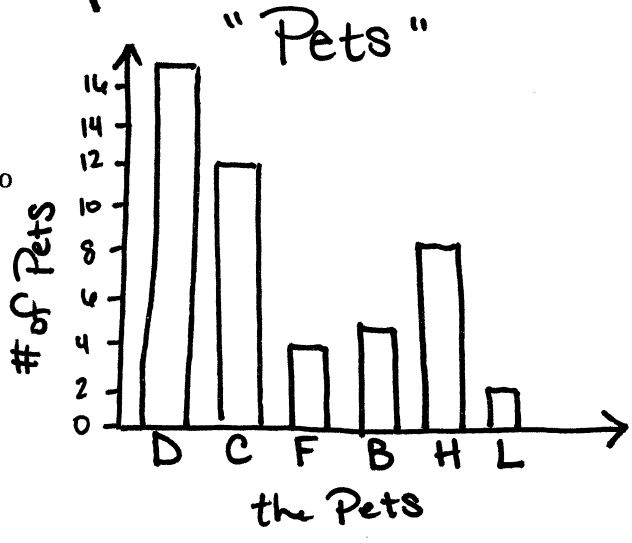
Vocabulary—*Use your notes to find the exact answer that fits each blank.*

1. The main difference between a bar graph and a histogram is that a histogram deals with quantitative data whereas a bar graph deals with categorical data.
2. In a stem plot, the ones place digit is called the leaf.
3. A dot plot displays quantitative variables.
4. The class width can be found by subtracting the min from the max and dividing by the total number of classes.
5. A(n) bar graph is a graphical display of categorical data using bars of different heights.
6. A Pareto Chart is a bar graph in which the bars are arranged from highest to lowest
7. A Time Series represents data that occur over a specific period of time
8. A graph made by plotting ordered pairs in a coordinate plane to show the relationship between two sets of data is called a Scatterplot
9. A correlation coefficient that falls between ± 1 and $\pm .8$ is considered Strong
10. Predicting within a range of given x-values is called interpolation.
11. Correlation describes the direction and strength of any relationship.
12. A correlation coefficient that falls between $\pm .5$ and 0 is considered Weak
13. The correlation coefficient is denoted by r.
14. A summary of a straight line relationship between two variables is called a regression line.
15. A correlation coefficient that falls between $\pm .8$ and $\pm .5$ is considered Moderate
16. Predicting outside a range of given x-values is called extrapolation.

Work Problems

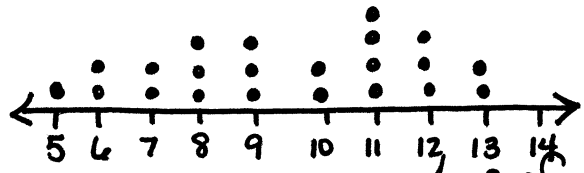
17. The following table shows the number of pets treated in one week at the local veterinarian clinic. Construct a **bar graph** to display this information. Be sure to label properly.

Pets Treated in One Week					
Dogs	Cats	Ferrets	Birds	Hamsters	Lizards
17	12	4	5	8	2



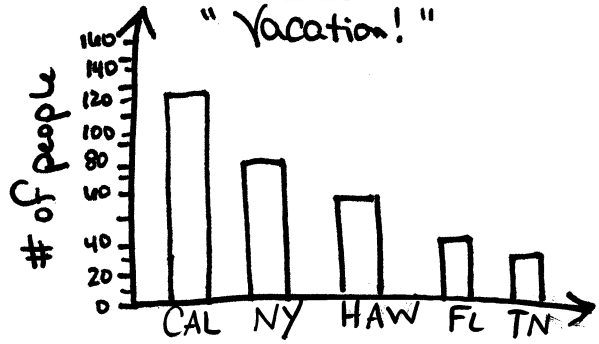
18. The ages of 22 students in a karate class are given below. Construct a **dot plot**.

11, 5, 9, 13, 8, 8, 8, 11, 10, 8, 6, 7, 12, 11, 13, 12, 7, 8, 11, 12, 10, 8



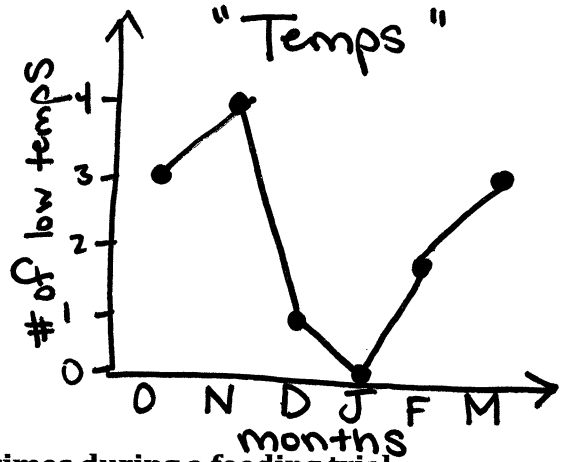
19. A survey of 350 local families asked the question, "Where are you planning to vacation this summer?" Construct a **Pareto Chart** from the following results.

Area	# Vacationing
Tennessee	32
New York	85
California	125
Florida	46
Hawaii	62



20. The number of record low temperatures for the past 6 months is summarized in the table below. Create a time series plot.

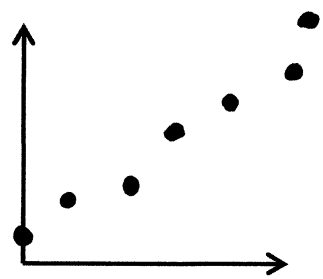
Months	Number of Record Low Temperatures
October	3
November	4
December	1
January	0
February	2
March	3



The table shows the weight of an alligator at various times during a feeding trial.

21. Make a scatterplot in your calculator of the table and sketch it below.

Weeks	0	9	18	27	34	43	49
Weight in pounds	6	8.6	10	13.6	15	17.2	19.8



22. Find the correlation coefficient, r. .995 or 1

23. Find the equation of the regression equation: $y = 5.823 + 0.275x$

24. Predict the weight of an alligator at week 62. 22.9 An example of: *interpolation* or *extrapolation*

25. Predict the weight of an alligator at week 13. 9.4 An example of: *interpolation* or *extrapolation*

26. Predict the age of an alligator that weights 16 lbs. 37 An example of: *interpolation* or *extrapolation*

27. Predict the age of an alligator that weights 41 lbs. 127.9 An example of: *interpolation* or *extrapolation*

28. The daily temperatures of the month of February were recorded. Using the recorded temperatures, make a **stem-and-leaf plot**.

35 45 42 41 25
36 27 41 34 73
26 58 29 20 28
35 46 43 42 45
21 26 35 41 47
40 39 28 19

19 20 21 25 26 26 27 28 28 29
34 35 35 35 36 39 40 41 41
41 42 42 43 45 45 47 48 58
73

1	9
2	0 1 5 6 6 7 8 8 9
3	4 5 5 5 6 9
4	0 1 1 1 2 2 4 5 5 7
5	8
6	
7	3

29. The following is a list of prices of items sold at a garage sale. Construct a frequency distribution using 4 classes. Draw a **histogram**.

34 2 11 30 4 29 5 24 8 10 5 10
2 12 5 15 20 23 25 10 28 29 1 30
8 6 30 15 5 26 32 17

Classes	tally	frequency
1 - 9	𝍸 𝍸 I	11
10 - 18	𝍸 III	8
19 - 27	𝍸 I	6
28 - 36	𝍸	5

+9 +9

$\frac{34-1}{4} = \frac{33}{4} = 9$