



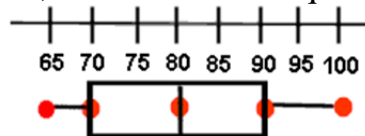
Working with Data

Name _____

1. For what value of x will x and 12 have the same mean (average) as 4 and 30?
 [1] 4 [2] 48 [3] 22 [4] 12
 1. _____
2. Find the median: 5, 15, 10, 15, 5, 10, 10, 20, 25, 15.
 [1] 10 [2] 12.5 [3] 15 [4] no median
 2. _____
3. Andy has grades of 84, 65, and 76 on three math tests. What grade must he obtain on the next test to have an average of exactly 80 for the four tests?
 [1] 80 [2] 93 [3] 95 [4] 98
 3. _____
4. Another term for line of best fit is
 [1] scatter plot [2] trend line [3] tangent line [4] slope
 4. _____
5. Which situation describes a situation that is *not* a causal relationship?
 [1] The rooster crows and the sun rises.
 [2] The more miles driven the more gasoline needed.
 [3] The more powerful the microwave the faster the food cooks.
 [4] The faster the pace of the runner the quicker the runner finishes.
 5. _____
6. Which situation should be analyzed using bivariate data?
 [1] Ms. Saleem keeps a list of the amount of time her daughter spends on her social studies homework.
 [2] Mr. Benjamin tries to see if his students' shoe sizes are directly related to their heights.
 [3] Mr. DeStefan records his customers' best video game scores during the summer.
 [4] Mr. Chan keeps track of his daughter's algebra grades for the quarter.
 6. _____
7. The heights of students in inches in Block 3 math class are: 65, 63, 68, 59, 74, 59, 68, 61, 64, 60, 69, 72, 55, 64. What percent (to the *nearest percent*) of the students are shorter than 5 feet 7 inches?
 [1] 28% [2] 29% [3] 50% [4] 64%
 7. _____
8. The weekly salaries of six employees at McDonalds are \$140, \$220, \$90, \$180, \$140, \$200. Find the mean salary for these six salaries.
 [1] \$140 [2] \$160 [3] \$161.67 [4] \$180
 8. _____
9. A storeowner kept a tally of the sizes of suits purchased in her store. Which measure of central tendency should the storeowner use to describe the average size suit sold?
 [1] mean [2] mode [3] median [4] range
 9. _____

10. According to the box-and-whisker plot shown below, what is the third quartile value?

- [1] 70 [2] 80 [3] 90 [4] 100



10. _____

11. Data regarding the students in the senior class: 578 students, 236 honor students, scholarship winners, 51% male. This data can be described as being

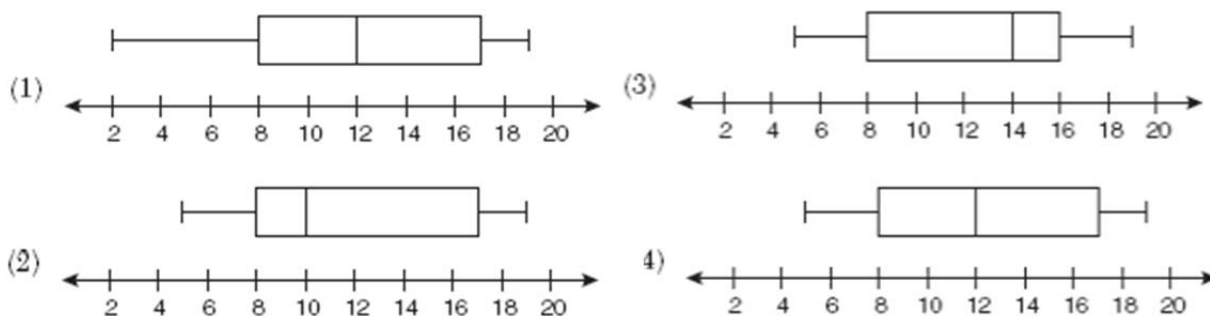
- [1] qualitative [2] quantitative [3] both [4] neither

11. _____

12. A study is conducted to determine whether office workers have high blood pressure. The participants in the study were friends of the researcher who shared the same doctor. Is this study biased? [1] yes [2] no

12. _____

13. The data set 5, 6, 7, 8, 9, 9, 9, 10, 12, 14, 17, 17, 18, 19, 19 represents the number of hours spent on the Internet in a week by students in a mathematics class. Which box-and-whisker plot represents this data?



13. _____

14. When data is graphed and a positive correlation is observed, the first set of data is always causing the affect seen in the second set of data. [1] True [2] False

14. _____

15. A tally was made of the number of times each color of crayon was used by a kindergarten class. Which measure of central tendency should the teacher use to determine which color is the favorite color of her class?

- [1] mean [2] mode [3] median [4] range

15. _____

16. Given the data below, what type of correlation exists between the number of hours spent in the mall and the number of dollars spent.

Hours in Mall	10	8	9	3	1	2	5	6	7	8	2	3
Dollars spent	40	15	24	20	10	35	50	70	18	25	100	60

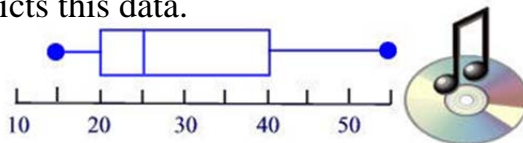
- [1] positive correlation [2] negative correlation [3] no correlation apparent

16. _____

17. The number of iTunes downloaded by 25 students in one week ranges from 15 to 55. The box-and-whisker plot below depicts this data.

What is the number of iTunes at the 50th percentile?

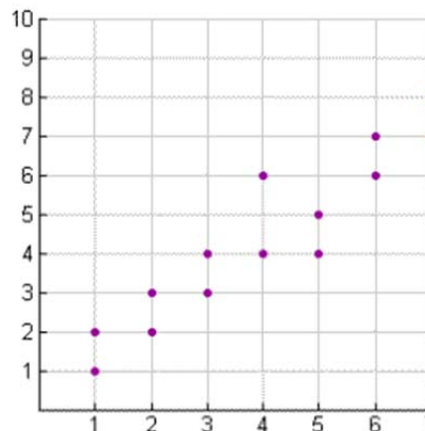
- [1] 15 [2] 20 [3] 25 [4] 40



17. _____

18. The correlation seen in the graph at the right would be best described as:

- [1] high positive correlation
 [2] low positive correlation
 [3] high negative correlation
 [4] low negative correlation



18. _____

19. The values of 11 houses on Washington Street are shown in the table. Find the mean value of these houses in dollars.

- [1] \$175,000 [3] \$225,000
 [2] \$200,000 [4] \$240,000

Value per House	Number of Houses
\$100,000	1
\$175,000	5
\$200,000	4
\$700,000	1

19. _____

20. The science test grades are posted. The class did very well. All students taking the test scored over 75. Unfortunately, 4 students were absent for the test and the computer listed their scores as 0 until the test is taken. Assuming that no score repeated more times than the 0's, what measure of central tendency would most likely give the best representation of this data?

- [1] mean [2] mode [3] median [4] range

20. _____