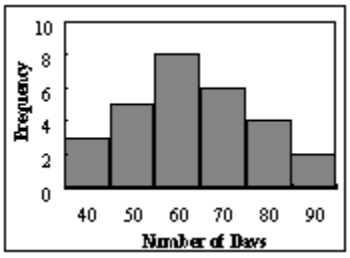
1. Find the class with the least number of data values.



A) 70 **B) 90** C) 60 D) 40

2. Thirty students recorded the colors of their eyes, choosing from the colors brown, blue, green, hazel, and black. This data can be appropriately summarized in a

A) Open-ended distribution
B) Categorical frequency distribution
C) Grouped frequency distribution
D) Upper boundary

3. A Pareto chart does <u>not</u> have which of the following properties?

A) It is a bar chart
B) The frequencies are arranged from highest to lowest
C) The frequencies are arranged from lowest to highest
D) It is used to represent categorical data

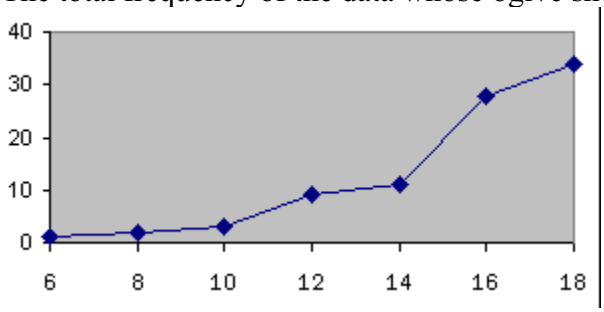
4. A time series graph is useful for which of the following purposes?

A) Representing relative frequencies of categories in a specific year
B) Representing the cumulative frequencies of the data in a specific year
C) Representing the frequencies of the data, sorted from largest to smallest
D) Representing the frequencies of a data category over a period of several years

5. The graphs that have their distributions as proportions instead of raw data as frequencies are called

A) relative frequency graphs.
B) ogive graphs.
C) histograms.
D) frequency polygons.

6. The total frequency of the data whose ogive shown below



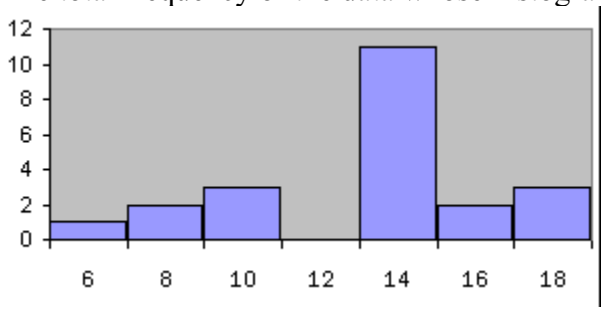
is approximately

A) 12 B) 18 **C) 34** D) 90

7. What are the boundaries of the class 1.87–3.43?

A) 1.9–3.4 B) 1.87–3.43 C) 1.879–3.439 **D) 1.865–3.435**

8. The total frequency of the data whose histogram is shown below



is approximately

A) 11 **B) 20** C) 50 D) 100

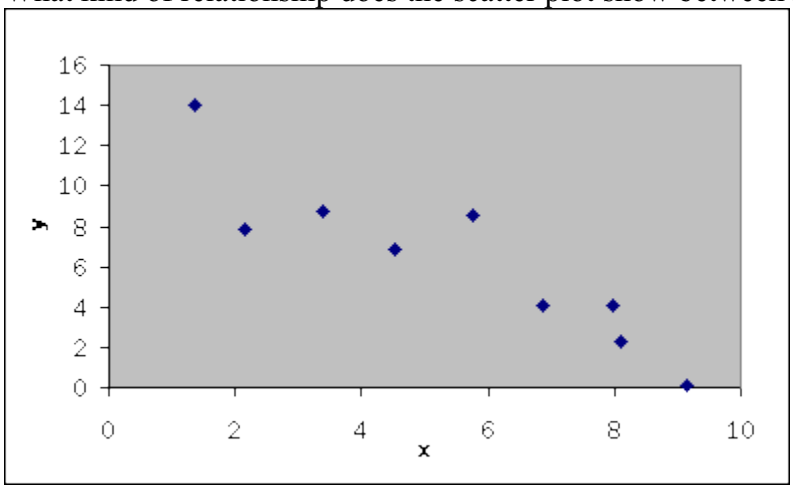
9. An automobile dealer wants to construct a pie graph to represent types of cars sold in July. He sold 72 cars; 16 of which were convertibles. The convertibles will represent how many degrees in the circle?

A) 60° **B) 80°** C) 100° D) 50°

10. A scatter plot would be useful for

A) Showing the relative number of sales of four different brands of blank DVDs
B) Showing the trend of sales, over time, of five different brands of blank DVDs
C) Showing the relationship between the sales of blank CDs and blank DVDs
D) Showing the top selling brands of blank DVDs

11. What kind of relationship does the scatter plot show between x and y?



A) A positive linear relationship
B) A negative linear relationship
C) No linear relationship
D) This is not a scatter plot

12. Exaggerating a one-dimensional increase by showing it in two dimensions is an example of a(n)

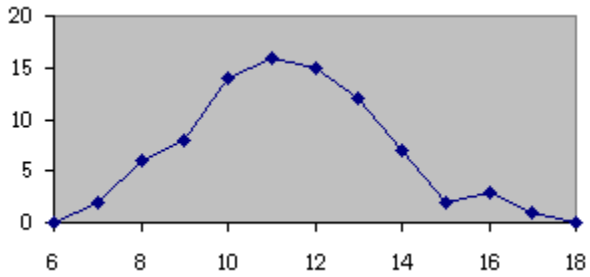
A) pictograph. B) pie graph. C) ogive. **D) misleading graph**.

13. A weatherman records the amount of rain that has fallen in Portland, Oregon during each day. What type of graph should he use?

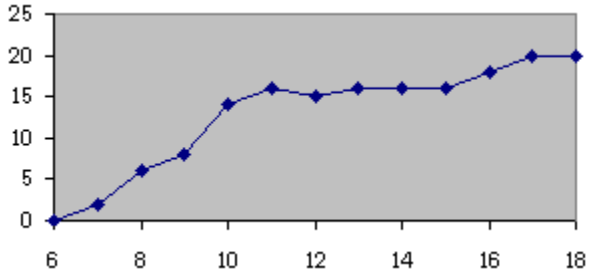
A) pie graph B) pictograph **C) time series graph** D) ogive

14. Which of the following could be a cumulative frequency graph?

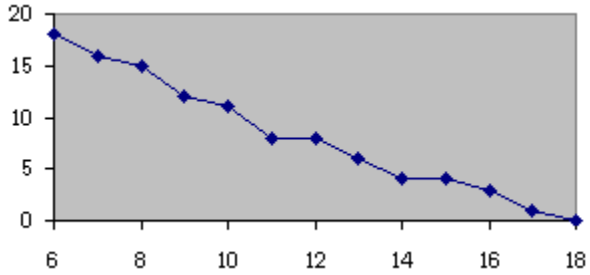
A)



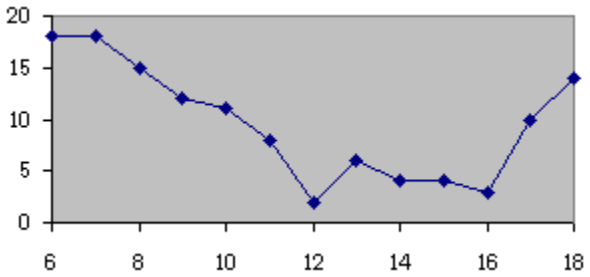
B)



C)



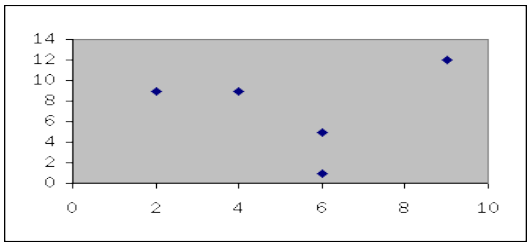
D)



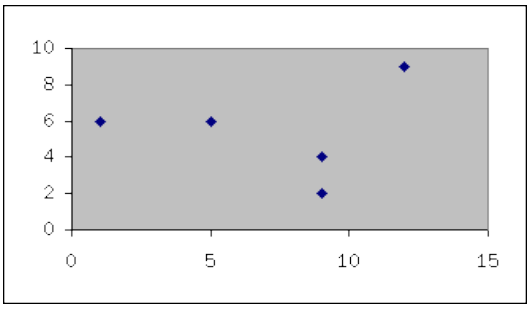
15. Which of the following graphs is the scatter plot for the data given below?

x values	9	9	12	5	1
y values	4	2	9	6	6

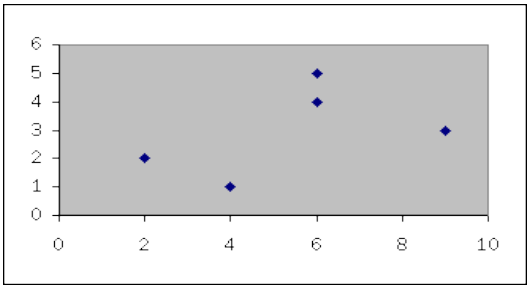
A)



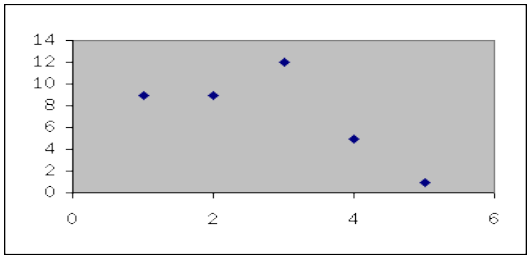
B)



C)

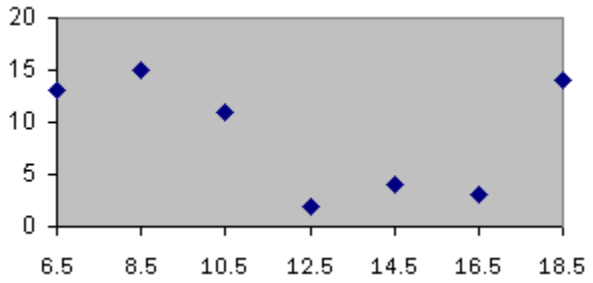


D)

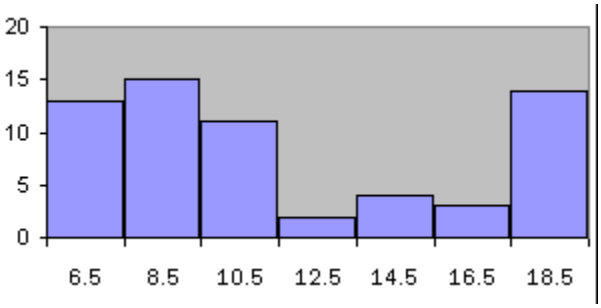


16. Which of the following is a frequency polygon?

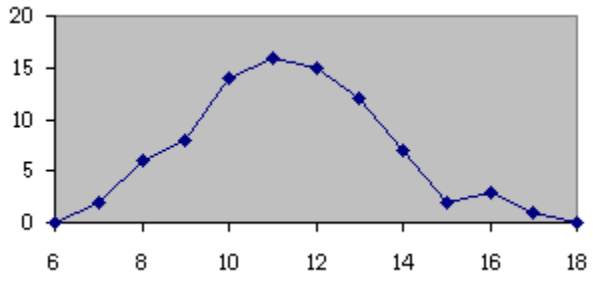
A)



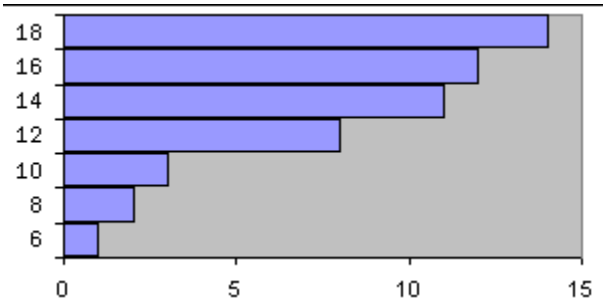
B)



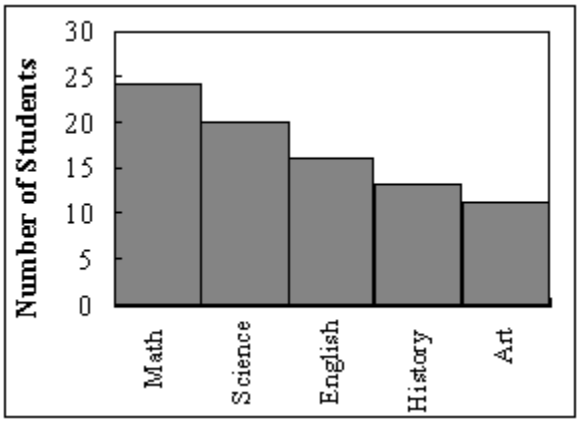
C)



D)



17. What type of graph is the figure below?



A) Pareto chart B) pictograph C) ogive D) pie graph

18. In a pie graph, if pepperoni pizza were 24/72 of the distribution, how many degrees would be needed to represent pepperoni?

A) 90° **B) 120°** C) 60° D) 150°

19. Karen is constructing a pie graph to represent the number of hours her classmates do homework each day. She found that 8/24 did homework for three hours each day. In her pie graph, this would represent how many degrees?

A) 135° B) 45° **C) 120°** D) 240°

20. What is the midpoint of the class 1-17?

A) 1 **B) 9** C) 1 and 17 D) 9 and 16

1. If the mean of a set of data is 23.00, and 12.60 has a z-score of –1.30, then the standard deviation must be:

   A) 4.00 B) 32.00 C) 64.00 **D) 8.00**

2. What is the median of the following numbers?
   3, 5, 8, 10, 14

   A) 9 B) 5 C) 7 **D) 8**

3. Find the *z* score for each student and indicate which one is higher.
   Art Major $X = 46$ $\overline{X} = 50$ $s = 5$
   Theater Major $X = 70$ $\overline{X} = 75$ $s = 7$

   A) Both students have the same score.
   B) Neither student received a positive score**;** therefore**,** the higher score cannot be determined.
   C) The theater major has a higher score than the art major.
   D) The art major has a higher score than the theater major.

4. Which of the following is the correct mean for the given data?
   7, 8, 13, 9, 10, 11

   A) 9.7 B) 9.67 C) 9 D) 10

5. The minimum of the set of numbers {–3, 17, -5, 11, 5} is

   A) 20 B) 10 C) –3 D) 17 **E) none of the above**

6. The maximum of the set of numbers {8, 18, -5, 11, 5} is

   A) 15 B) -5 **C) 18** D) 10.5

7. If the mean of a set of data is 23.00, and 30.50 has a z-score of 0.75, then the standard deviation must be:

   A) 100.00 B) 5.00 C) 50.00 **D) 10.00**

8. If the five number summary for a set of data is 0, 3, 6, 7, and 16, then the mean of this set of data is

   A) 6 **B) there is insufficient information to calculate the mean** C) 8 D) 5

9. Find Q_1 , Q_2 , and Q_3 for the following data set.
   7, 21, 32, 38.

   A) $Q_1 = 5$, $Q_2 = 20$, and $Q_3 = 39$
   C) $Q_1 = 14$, $Q_2 = 25$, and $Q_3 = 25$
   B) $Q_1 = 14$ **,** $Q_2 = 26.5$ **, and** $Q_3 = 35$
   D) $Q_1 = 10$, $Q_2 = 25$, and $Q_3 = 36$

10. Find the median for the following data.
    6, 7, 4, 5, 3, 7, 4

    A) 5 B) 3 C) 7 D) 4

11. All the values in a dataset are between 9 and 11, except for one value of 84. That value 84 is likely to be

    A) the boxplot B) the mean C) the range **D) an outlier**

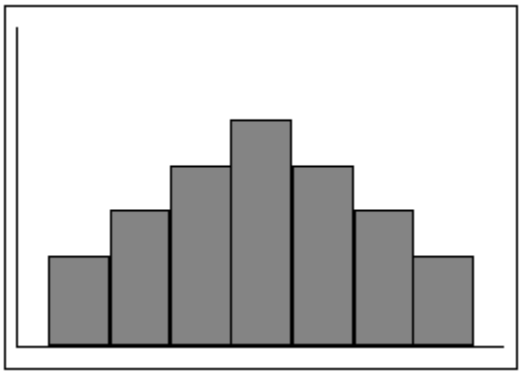
12. A student received the following grades: An A in Statistics (4 credits), a F in Physics II (5 credits), a B in Sociology (3 credits), a B in a Literature seminar (2 credits), and a D in Tennis (1 credit). Assuming A = 4 grade points, B = 3 grade points, C = 2 grade points, D = 1 grade point, and F = 0 grade points, the student's grade point average is:

    A) 2.47 B) 2.24 C) 2.52 D) 2.40 **E) 2.13**

13. Given that the variance for a data set is 1.20, what would be the standard deviation?

    A) 0.60 B) 1.20 **C) 1.10** D) 1.44

14. In a unimodal, symmetrical distribution as shown in the figure below.



A) The median and the mode are the same, but the mean can be different.
B) The mean is the same as the median, but the mode can be different.
C) The mean, the median, and the mode are different.
D) The mean, the median, and the mode are the same.

15. If a set of 25 numbers has standard deviation 9, then it's variance is

A) 45.00 B) 16.20 **C) 81.00** D) 1.80

16. Which of the following is true?

A) $D_{50} = P_5 = Q_{25}$ **B)** $D_5 = P_{50} = Q_2$ C) $D_{50} = P_5 = Q_2$ D) $D_5 = P_5 = Q_5$

17. Determine the range for this data: 4, 7, 3, 16, 5, 22, and 8.

A) 14 **B)** 19 C) 3 D) 4

18. What is the range of the numbers –6, 2, –8, 3, 11

A) 19 B) –6 C) 2 D) 3

19. The range of the set of numbers {8, 17, 3, 10, 5} is

A) 10 **B) 14** C) 17 D) 3

20. What is the term for a characteristic or measure obtained by using all the data values for a specific population?

A) mode B) statistic **C) parameter** D) variable