Chapter 2 - Statistics
Section 2.1and 2.2

Student's name :   *Class*:   *Date*:

1. Which of the following does not need to be done when constructing a frequency distribution?
   A) select the number of classes desired
   B) find the range
   C) make the class width an even number
   D) use classes that are mutually exclusive

2. The lower class limit represents the smallest data value that can be included in the class.(True or False)

3. When data are collected in original form, they are called _____.

4. The _____ of a specific class is the number of data values contained in it.

5. If a frequency distribution had class boundaries of 132.5–147.5, what would be the class width?

6. For the class 10 - 18, the upper class limit is
   A) 9.5   B) 10   C) 18   D) 18.5

7.   What are the boundaries of the class 12-19?
   A) 11.5 and 19.5   B) 8.5 and 22.5   C) 12 and 19
   D) 7

8. In an ungrouped frequency distribution of the average age of high school graduates, what would be the boundaries for the class of graduates who were reported to be 18 years old?
   A) 17–19 years old   C) 17.6 – 18.5 years old
   B) 17.5 – 18.5 years old   D) 17.6 ₋ 19.5 years old

9. What is the midpoint of the class 7-11 ?
   A) 9.5   B) 9   C) 5   D) 4

10. Greg wants to construct a frequency distribution for the political affiliation of the employees at Owen's Hardware Store. What type of distribution would be best?
    A) ungrouped   B) grouped   C) categorical
    D) cumulative

11. What is the lower class limit of the class 13–17?
    A) 15   B) 17   C) 13   D) 12.5

12. What is the midpoint of the class 12–15 ?
    A) 1.5   B) 13.5   C) 3   D) 13

13. What is the upper class boundary of the class 23–35 ?
    A) 35   B) 7.5   C) 35.5   D) 7

14. If the limits for a class were 20–38, the boundaries would be 19.5–38.5.

15. For grouped frequency distributions, the _____ is obtained by adding the lower and upper limits and dividing by 2.

16. What is the lower class limit in the class 6-10 ?
    A) 6   B) 8   C) 6.5   D) 5.5

17. Which of the following pairs of class limits would be appropriate for grouping the numbers 14, 17, 12, and 19 ?
    A) 11-15 and 15-19   C) 12-14 and 15-19
    B) 12-14 and 17-19   D) 12-15 and 16-19

18. 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(n)_____ .
    A) open-ended distribution   C)   grouped frequency distribution
    B) categorical frequency distribution   D) upper boundary

19. What are the boundaries of the class 1.87–3.43 ?
   A) 1.82–3.48   B) 1.87–3.43   C) 1.879–3.439
   D) 1.865–3.435

20. For the class 16.3–23.8, the width is 8.5.(True or False)

21. When the range is large, and classes that are several units in width are needed, a _____ frequency distribution is used.

22. The cumulative frequency for a class is the sum of the frequencies of the classes less than and equal to the upper boundary of the specific class.

23. Construct a frequency polygon from the following frequency distribution.

Temperature	Frequency
28.5–31.5	1
31.5–34.5	3
34.5–37.5	6
37.5–40.5	10
40.5–43.5	8
43.5–46.5	7

24. Find the class with the least number of data values.
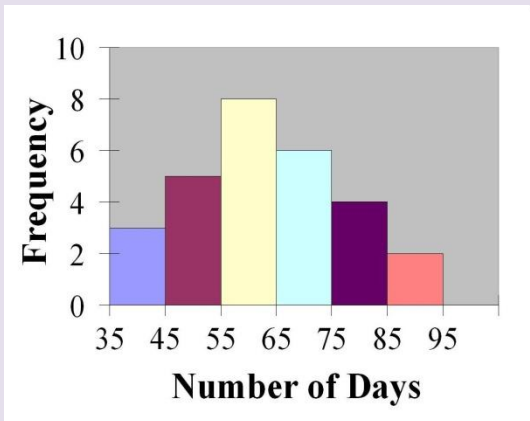
A) 55-65   B) 65-75   C) 75-85   D) 85-95

25. Find the class with the greatest number of data values.
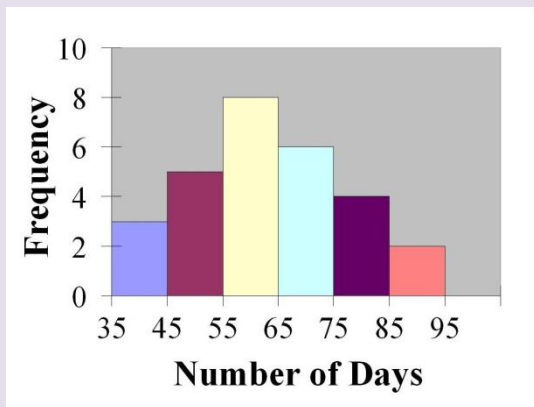
A) 55-65   B) 65-75   C) 75-85   D) 85-95

26. An ogive is also called a cumulative frequency graph. (True or False)

27. The three most commonly used graphs in research are the histogram, the _____, and the cumulative frequency graph (ogive).

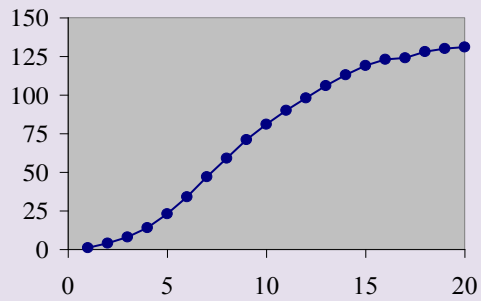28. Which of the following could be a cumulative frequency graph?
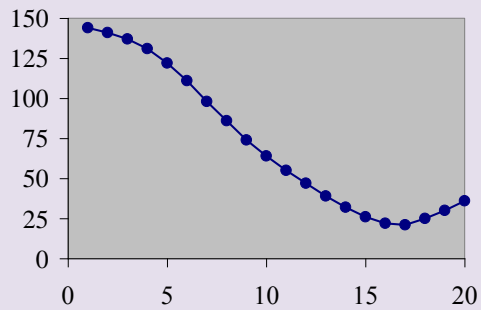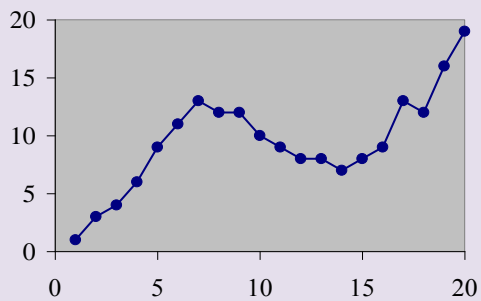
A)
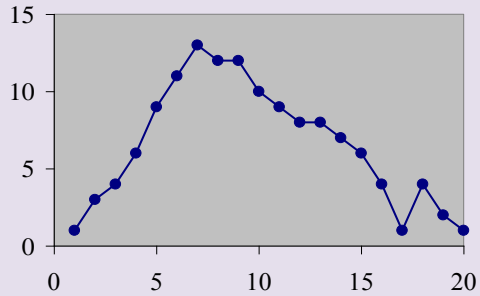
B)
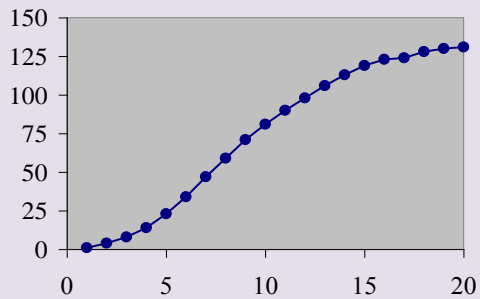
C)
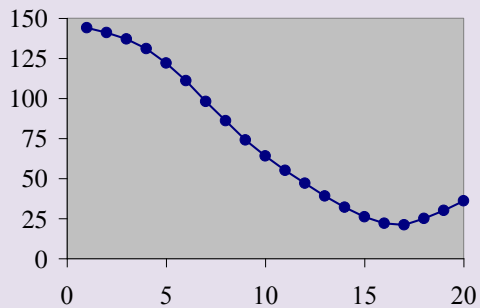
D)
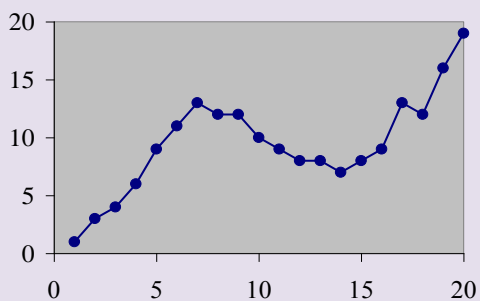
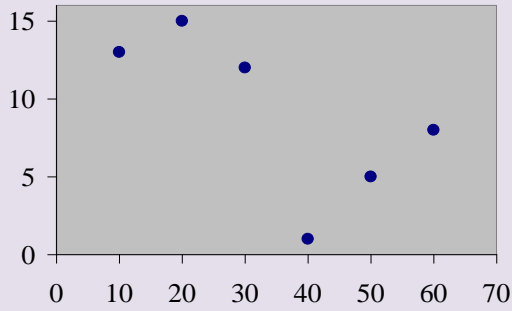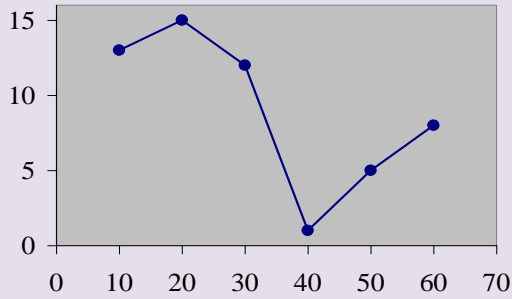29. Which of the following could be an ogive?

A)
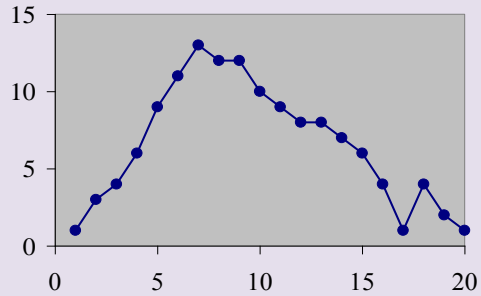
B)

C)

D)

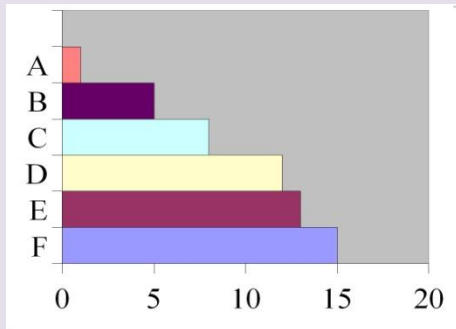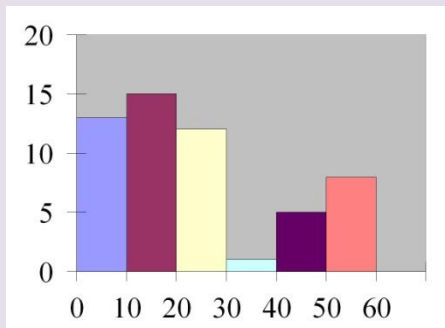## 30. Which of the following is a histogram?
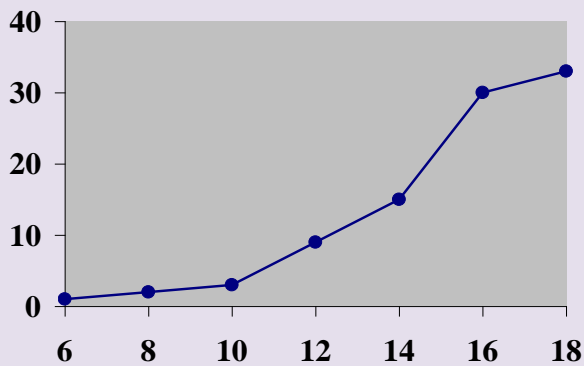
A)

B)

C)

D)

31. The frequency polygon and the histogram are two different ways to represent the same data set.
(True or False).

32. For a given data set, the ogive and the frequency polygon will have the same overall shape.

33. Using the ogive shown below, what is the cumulative frequency of data values less than or equal to 16 ?


A) 66   B) 60   C) 30   D) 20

34. Graphs that show distributions using proportions instead of raw data as frequencies are called
    A) relative frequency graphs. C)   histograms.
    B) ogive graphs.   D) frequency polygons.

35. Which type of graph represents the data by using vertical bars of various heights to indicate frequencies?
    A) ogive   B) frequency polygon   C) histogram
    D) cumulative frequency

36. The frequency polygon is a graph that displays the data by using lines that connect points plotted for the frequencies at the midpoints of the classes.
    (True or False).

37. A histogram is a graph that represents the cumulative frequencies for the classes in a frequency distribution.(True or False) .

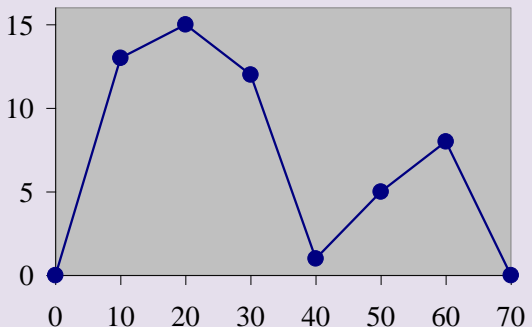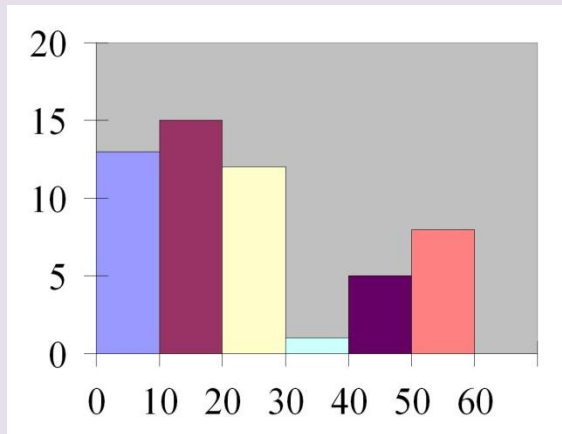## 38. Which of the following is a frequency polygon?

A)
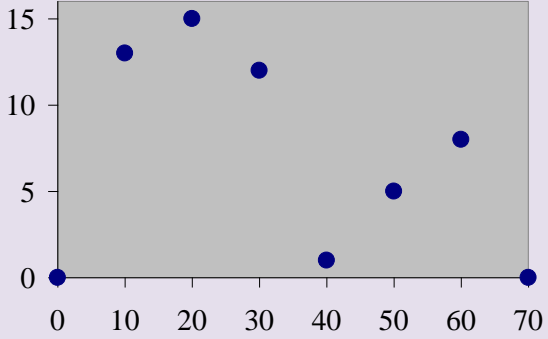
B)
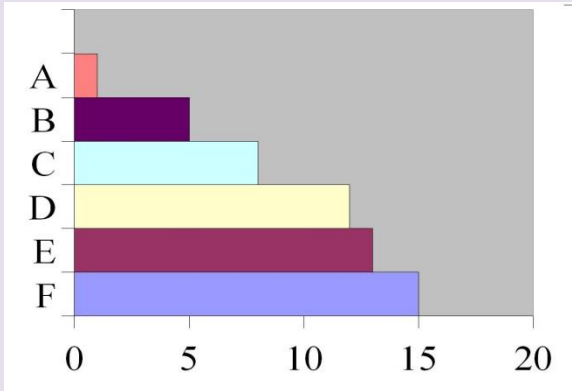
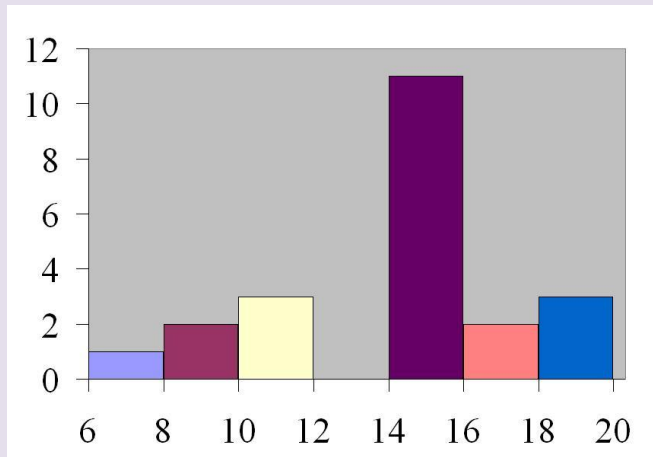C)

D)

39. How many values are in the data set whose histogram is shown below ?

A) 6   B) 22   C) 76   D) 72

40. Given the following frequency distribution, how many pieces of data were less than 28.5?

Class Boundaries	Frequenc-ies
13.5–18.5	4
18.5–23.5	9
23.5–28.5	12
28.5–33.5	15
33.5–38.5	17

A) 12   B) 13   C) 25   D) 44

41. If the graph of a frequency distribution has a peak and the data tapers off more slowly to the right and more quickly to the left, the distribution is said to be _____.