

***Visualizing Health Care Statistics 2nd edition Wicker
Test Bank***

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Chapter: Chapter 02 - Quiz

Multiple Choice

1. What is the best definition of mean?

- A) The most common measure of central tendency
- B) Continuous data
- C) Discrete data
- D) Predictive of a value in a dataset

Ans: A

2. What is the definition of median?

- A) Skewed data
- B) To retain a position in data
- C) A typical value of a sample
- D) Median reflects the midpoint of a frequency

Ans: D

3. What is the definition of mode?

- A) Having two variables
- B) The most frequent observations in a frequency distribution
- C) Data that are infinite
- D) Data that are fixed

Ans: B

4. Calculate the mean from the following information: 4, 10, 3, 7, 1, 8, 3, 9, 12, 22, 14, 20, 8, 9.

- A) 7.23
- B) 7
- C) 7.5
- D) 7.3

Ans: D

5. Calculate the mean for the following: 56, 41, 89, 23, 57, 10, 17, 33, 59, 65.

- A) 46
- B) 45
- C) 46.4
- D) 47

Ans: B

6. What is the median for the following?: 8, 14, 28, 33, 49, 51, 63, 71, 77, 87, 96

- A) 51
- B) 49
- C) 63
- D) 33

Ans: A

Rationale: Remember to put the data in order from the lowest to the highest. In an odd set of numbers the median will be the one in the middle. There will be the same amount of numbers before and after.

7. Determine the median for the following numbers: 8, 12, 21, 38, 41, 56, 62, 74, 76, 83.

- A) 46
- B) 56
- C) 41
- D) 48.5

Ans: D

Rationale: Now you have only 10 numbers. So you add together the two in the middle and divide by two to get the median.

8. What is the mode of the following numbers: 3, 8, 8, 57, 71, 77, 44, 45, 49, 63, 77, 44?

- A) 8, 44
- B) 44, 8
- C) 77, 8
- D) 8, 44, 77

Ans: D

Rationale: First place the numbers in numerical order: 3, 8, 8, 44, 44, 45, 49, 63, 71, 77, 77. This allows you to see how often a specific value occurs.

9. What is the definition of statistics?

- A) Numbers kept on a computer
- B) The collection of data for the purpose of making predictions or considerations or summary analysis to answer questions
- C) To compare data from year to year
- D) To improve patient care

Ans: B

10. What is the correct definition for certificate of need?

- A) A statement or certificate that is issued by a government agency for projected construction or modification of a healthcare facility.
- B) To set goals
- C) To track patients and their outcomes
- D) To link services to the diagnosis of the patient

Ans: A

11. From the following information determine the type of data provided: Dogs 4; Cats 8

- A) Discrete data

- B) Ranked data
- C) Ordinal data
- D) Nominal data

Ans: D

12. What is the correct definition of discrete data?

- A) Data that can take on many values
- B) Data that can take only certain values
- C) Data that have no value
- D) Data that are continuous

Ans: B

13. What is the definition of continuous data?

- A) Continuous data have no breaks in a selected range.
- B) Continuous data can take on many values.
- C) Continuous data have no value.
- D) Continuous data break in a selected range.

Ans: A

14. Nine patients' wait times are listed in minutes as follows. What is the mean for their wait time in the physician's office? 15, 25, 10, 19, 35, 5, 45, 31, 20.

- A) 22 minutes
- B) 23 minutes
- C) 20 minutes
- D) 9 minutes

Ans: B

Rationale: Add $15+25+10+19+35+5+45+31+20=205/9=22.77(23)$ minutes

15. Using the same values (15, 25, 10, 19, 35, 5, 45, 31, 20), determine the median for patient wait time in the physician's office.

- A) 31
- B) 20
- C) 19
- D) 25

Ans: B

Rationale: Put the numbers in order: 5, 10, 15, 19, 20, 25, 31, 35, 45. You have nine numbers so the median is 20. You have four numbers before and four numbers after 20.

16. From the following minutes for checkout time determine the mode: 22, 14, 10, 8, 8, 20, 21, 22, 5, 8, 14, 20.

- A) 8
- B) 14
- C) 22
- D) 20

Ans: A

Rationale: First place the numbers in numerical order: 5, 8, 8, 8, 10, 14, 14, 20, 20, 22, 22

17. Use data listed in the table to calculate the mean, median, and mode, for the ages of 80 nursing home residents.

65	68	71	73	75	76	78	80
65	68	71	74	75	76	78	80
65	69	72	74	75	76	78	82
66	69	72	74	75	77	80	82
66	69	72	75	77	77	79	80
67	70	72	75	77	78	80	83
67	70	73	75	77	79	80	83
68	70	73	75	79	80	80	84
68	71	73	76	79	80	80	84
69	71	73	76	79	80	80	84

- A) Mean 75, Median 73, Mode 84
- B) Mean 68, Median 70, Mode 75
- C) Mean 66, Median 77, Mode 70
- D) Mean 74.9, Median 75, Mode 80

Ans: D

18. Fifty children were diagnosed with leukemia during the past year. The weight of each child was recorded (in pounds) at the time of diagnosis. Listed are the weights from low (lightest) to high (heaviest): 20, 22, 23, 26, 27, 28, 28, 29, 30, 31, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 42, 43, 43, 44, 45, 47, 48, 48, 49, 49, 51, 52, 52, 52, 54, 55, 56, 58, 58, 58, 60, 61, 62, 63, 64, 65, 67, 68, 70. Calculate the mean, median, and mode.

- A) Mean 44.85714, Median 44, Mode 58
- B) Mean 44, Median 43, Mode 57
- C) Mean 43, Median 48, Mode 52
- D) Mean 43, Median 31, Mode 55

Ans: A

19. Using the following data on the length of stay for patients with diverticulitis who had a partial bowel resection performed, calculate the following: Mean, Median, and Mode.

5, 7, 9, 4, 6, 5, 7, 3, 6, 6, 4, 5, 5, 7, 7, 3

- A) Mean 5, Median 5, Mode 7
- B) Mean 4, Median 7, Mode 6
- C) Mean 5.5625, Median 5.5, Mode 5
- D) Mean 3, Median 7, Mode 4

Ans: C

True/False

1. The Bureau of Labor Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention, and Centers for Medicare and Medicaid Services are some of the key producers and users of healthcare statistics.

Ans: True