Name Date

Test A

Chapter

9

Determine whether the question is a statistical question. Explain.

Answers

1.

2.

3.

4. See left.

5. See left.

6.

7.

8.

9.

10.

11.

12.

13.

14.

1. How many years of experience do elementary school teachers have?

2. What is the favorite food of sixth-grade students?

3. What is the height of the Empire State Building?

Display the data in a dot plot. Identify any clusters, peaks, or gaps in the data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Points** | | | | |
| 0 | 1 | 2 | 0 | 2 |
| 2 | 0 | 1 | 0 | 5 |
| 0 | 5 | 2 | 6 | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | | | |
| 2010 | 2012 | 2011 | 2014 |
| 2011 | 2015 | 2010 | 2015 |
| 2014 | 2013 | 2011 | 2011 |

4. 5.

Find the mean, median, and mode(s) of the data.

6. 4, 6, 5, 4, 4, 5, 4, 8 7. 95, 90, 100, 90, 85, 95, 75

Find the mean, median, and mode(s) of the data. Choose the   
measure that best represents the data.

8. 61, 65, 70, 79, 82, 84, 91 9. 31, 35, 2, 32, 27, 35

10. The table below shows the amount of time you spend exercising   
a day. Find the mean, median, and mode(s) of the data.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Time (hours)** | | | | | | |
| 1 | 1.5 | 0.5 | 0 | 1 | 1.5 | 2 |

Find the range of the data.

11. 18, 69, 91, 23, 13, 27 12. 90, 89, 114, 92, 113, 107, 91

Find the median, first quartile, third quartile, and interquartile range   
of the data.

13. 20, 18, 6, 4, 11, 22, 0 14. 92, 53, 25, 20, 16, 65, 92, 70

Name Date

Test A **(continued)**

Chapter

9

Find and interpret the mean absolute deviation of the data. Round   
your answer to the nearest tenth, if necessary.

|  |  |  |  |
| --- | --- | --- | --- |
| **Vacation Days Taken** | | | |
| 10 | 7 | 2 | 5 |
| 3 | 8 | 0 | 10 |

Answers

15.

16.

17. a.

b.

18. a.

b.

19.

20. a.

b.

15. 16.

|  |  |  |  |
| --- | --- | --- | --- |
| **Height (inches)** | | | |
| 57 | 53 | 52 | 59 |
| 61 | 57 | 55 | 57 |

17. The table shows the number of students in a homeroom of 32 who brought a lunch from home each day.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day | Mon | Tues | Wed | Thurs |
| Brought Lunch | 18 | 14 | 20 | 16 |

a. Find the mean of the data.

b. Friday is a class field trip and all 32 students bring their lunch.   
Will the mean for the whole week be greater than or less than   
the mean for Monday through Thursday? Explain. Then find   
the new mean.

18. The data are the number of minutes students spend studying for a test.

35, 32, 38, 34, 36, 69, 32, 25, 41

a. Find the mean, median, mode, and range.

b. Does the *mean*, the *median*, or the *mode* represent the data best? Explain your reasoning.

19. The table shows the five fastest and five slowest finishing times for a track race. Find the MAD of each data set. Then compare their variations.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Five Fastest Times (seconds) | | | | |  | Five Slowest Times (seconds) | | | | |
| 50 | 51 | 52 | 52 | 53 |  | 60 | 61 | 64 | 70 | 78 |

20. The data are the number of CDs purchased by students last year.

5, 1, 6, 2, 8, 3, 5, 12, 7, 0

a. Find the measures of center and the measures of variation for the data.

b. A new student is added to the data set who purchased 17 CDs last year.   
Is 17 an outlier? How does adding this value to the data set affect the   
measures of center and variation? Explain.