NAME

Module 19 Analyzing Data and Statistics
Lesson 5 Solving Statistics Problems

additional practice

1. The sum of all the data divided by the number of pieces of data is called the _____.

a. mean
b. deviation from the mean
c. deviation from the mode
d. mean absolute deviation

2. A deviation from the mean is _____.

a. a change from one mean to another
b. a data item minus the mean
c. the absolute value of the mean
d. an absolute value of a deviation

3. The sum of all the deviations for any data set is equal to _____.

a. zero
b. deviation from the mean
c. deviation from the mode
d. mean absolute deviation

4. Find the sum of the deviations from the mean in the data below.

10, 20, 30, 40, 50

a. 60
b. 12
c. 30
d. 0

5. Find the mean of the data below.

56, 66, 86, 97, 100

a. 44
b. 78
c. 81
d. 86

6. Write the deviations from the mean to complete the table.

Number	Deviation
56	**–25**
66	**–15**
86	**5**
97	**16**
100	**19**

7. Write the missing absolute deviations from the mean to complete the table.

Number	Absolute Deviation
152	15
157	**10**
166	**1**
173	**6**
187	20

8. Find the mean absolute deviation for the data below.

42, 47, 59, 65, 72

a. 10
b. 15
c. 57
d. 59

Use the data below to answer Questions 9–14.

Ages of People in a Pick-up Basketball Game (years):
11, 14, 15, 16, 23, 26, 31, 40, 61, 63

9. What is the mean of the ages?

a. 23
b. 24.5
c. 26
d. 30

10. Write the deviations from the mean to complete the table.

Age	Deviation	Age	Deviation
11	**–19**	26	**–4**
14	**–16**	31	**1**
15	**–15**	40	**10**
16	**–14**	61	**31**
23	**–7**	63	**33**

11. What is the mean absolute deviation of the ages?

a. 15
b. 24.5
c. 26.5
d. 30

12. How many players in this group have an age that is within one mean absolute deviation of the mean?

a. 4
b. 6
c. 8
d. 10

13. How many players in this group have an age that is within two mean absolute deviations of the mean?

a. 4
b. 6
c. 8
d. 10

14. What ages are more than two mean absolute deviations from the mean?

a. 11, 14
b. 11, 63
c. 23, 26
d. 61, 63

Use the list of data below to answer Questions 15–18.

Ages of Players in a Volleyball Game (years):
12, 13, 14, 17, 18, 18, 20, 20, 22, 23, 34, 41

Age	Deviation	Age	Deviation
12		20	
13		20	
14		22	
17		23	
18		34	
18		41	

15. What is the mean of the data?

a. 18 **b.** 19 **c.** 20 **d.** 21

16. Which table shows the correct **absolute** deviations from the mean?

a.

Age	Absolute Deviation	Age	Absolute Deviation
12	33	20	41
13	34	20	41
14	35	22	43
17	38	23	44
18	39	34	55
18	39	41	62

b.

Age	Absolute Deviation	Age	Absolute Deviation
12	9	20	1
13	8	20	1
14	7	22	1
17	4	23	2
18	3	34	13
18	3	41	20

c.

Age	Absolute Deviation	Age	Absolute Deviation
12	8	20	0
13	7	20	0
14	6	22	2
17	3	23	3
18	2	34	14
18	2	41	21

d.

Age	Absolute Deviation	Age	Absolute Deviation
12	–9	20	–1
13	–8	20	–1
14	–7	22	1
17	–4	23	2
18	–3	34	13
18	–3	41	20

17. Find the mean absolute deviation.

a. 1
b. 6
c. 7.2
d. 72

18. How many of the players in this group scored within one mean absolute deviation of the mean?

a. 6
b. 7
c. 8
d. 9