Mean absolute deviation and comparing spread worksheet – Grade 10

Grade 10 · Mixed level · 20 questions · **Version X7801**

Name: _____ Date: _____ Score: ___ / 20

Scan to check answers + earn stars

Done the worksheet? Scan the code (or enter version X7801 on this skill's page at themathmeridian.com) to check your answers online and earn stars.

1. Find the mean of 22, 14, 19, 16, 16, 21.

   Answer: _____

2. What does a standard deviation of 0 mean?

   A. All the values are equal **B.** The mean is 0 **C.** There is no data

   D. The values are all 1

3. Find the mean of 9, 8, 8, 14.

   Answer: _____

4. Store X has a standard deviation of 6 and Store Y 8. Which is more consistent?

   A. Store X **B.** Store Y

5. Work out the mean of 17, 11, 18, 12, 11, 20. Give your answer to two decimal places.

   Answer: _____

6. What is the mean of 5, 9, 9, 6, 6, 11? Give your answer to two decimal places.

   Answer: _____

7. Bus 1 has a standard deviation of 4 and Bus 2 5. Which is more consistent?

   A. Bus 1 **B.** Bus 2

8. Adding 4 to every value in a data set with a standard deviation of 5 gives what new standard deviation?

   Answer: _____

9. What is the variance of 18, 20, 23, 17, treating it as a whole population?

   Answer: _____

The Math Meridian

© The Math Meridian · themathmeridian.com · Free for personal and classroom use

10. Find the standard deviation of 34, 34, 31, 41, to two decimal places, treating it as a whole population.

    Answer: _____

11. What is the variance of 21, 20, 22, 24, 19, treating it as a whole population?

    Answer: _____

12. Find the standard deviation of 31, 34, 29, 32, 29, to two decimal places, treating it as a whole population.

    Answer: _____

13. Find the variance of 21, 15, 19, 19, treating it as a whole population.

    Answer: _____

14. Find the variance of 38, 32, 30, 39, 39, 34, treating it as a whole population. Give your answer to two decimal places.

    Answer: _____

15. points per game: the mean is 89 and the standard deviation is 6. What value is 2 standard deviations above the mean?

    Answer: _____

16. Why might MAD be easier to explain than standard deviation?

    A. It is just the average distance from the mean **B.** It is always smaller

    C. It ignores the mean **D.** It uses no numbers

17. daily sales: the mean is 79 and the standard deviation is 3. What value is 1 standard deviation above the mean?

    Answer: _____

18. A test has a mean of 87 and a standard deviation of 7. A mark of 101 is how many standard deviations above the mean?

    Answer: _____

19. A very large outlier is added to a data set. What happens to the standard deviation?

    A. It increases **B.** It decreases **C.** It stays the same **D.** It becomes 0

20. minutes late: the mean is 85 and the standard deviation is 5. What value is 2 standard deviations above the mean?

    Answer: _____

The Math Meridian

Answer key · Version X7801

Mean absolute deviation and comparing spread worksheet – Grade 10 · Grade 10 · to reprint this sheet or check the answers, enter X7801 on the skill page.

1. **18**
2. **A (All the values are equal)**
3. **9.75**
4. **A (Store X)**
5. **14.83**
6. **7.67**
7. **A (Bus 1)**
8. **5**
9. **5.25**
10. **3.67**
11. **2.96**
12. **1.9**
13. **4.75**
14. **12.56**
15. **101**
16. **A (It is just the average distance from the mean)**
17. **82**
18. **2**
19. **A (It increases)**
20. **95**

The Math Meridian