How changes affect mean, median, IQR and range worksheet – Grade 8

Grade 8 · Mixed level · 20 questions · **Version X3652**

Name: _____ Date: _____ Score: ___ / 20

Scan to check answers + earn stars

Done the worksheet? Scan the code (or enter version X3652 on this skill's page at themathmeridian.com) to check your answers online and earn stars.

1. Every value in 30, 60, 26, 16, 33, 10, 36 is multiplied by 3. What is the new range?

   Answer: _____

2. Every value in 31, 33, 28, 45, 55, 33, 55, 21, 43 goes up by 6. What is the new range?

   Answer: _____

3. Every value in 47, 33, 12, 31, 17 is multiplied by 2. What is the new range?

   Answer: _____

4. Every value in 31, 24, 15, 46, 36 goes up by 4. What is the new range?

   Answer: _____

5. Every value in 43, 58, 35, 25, 22, 51, 22, 26, 10 is multiplied by 2. What is the new median?

   Answer: _____

6. Every value in 45, 25, 39, 31, 28, 19, 10 goes up by 4. What is the new median?

   Answer: _____

7. Every value in 31, 10, 46, 27, 50, 27, 42 goes up by 2. What is the new median?

   Answer: _____

8. The largest value of 14, 19, 12, 41, 14, 26, 23 is increased by 25. Which does not change?

   A. The median **B.** The mean **C.** The range **D.** The total

9. The largest value of 47, 25, 43, 20, 26, 11, 44, 57, 48 is increased by 39. What is the new range?

   Answer: _____

10. The largest value of 17, 29, 51, 50, 24 is increased by 32. Which does not change?

    A. The median **B.** The mean **C.** The range **D.** The total

The Math Meridian

11. A value equal to the mean is added to a data set. What happens to the mean?

    A. It stays the same **B.** It goes up **C.** It goes down **D.** It doubles

12. The mean of 57, 19, 17, 31, 20 is 28.8. Every value goes up by 8. What is the new mean, to one decimal place?

    Answer: _____

13. The mean of 27, 30, 20, 57, 18, 49, 46 is 35.3. Every value goes up by 7. What is the new mean, to one decimal place?

    Answer: _____

14. The mean of 31, 44, 11, 29, 15, 45, 11, 35, 17 is 26.4. Every value goes up by 2. What is the new mean, to one decimal place?

    Answer: _____

15. A value of 81 is added to 47, 48, 42, 58, 23. What is the new mean, to one decimal place?

    Answer: _____

16. The largest value of 39, 46, 44, 16, 23, 36, 33 is increased by 36. By how much does the mean rise, to one decimal place?

    Answer: _____

17. Temperatures in °C have a mean of 40. Using F = 2C + 30 as a rough rule, what is the mean in °F?

    Answer: _____ °C

18. The largest value of 41, 13, 16, 22, 18 is increased by 26. By how much does the mean rise, to one decimal place?

    Answer: _____

19. Temperatures in °C have a range of 24. Using F = 2C + 30 as a rough rule, what is the range in °F?

    Answer: _____ °C

20. A value of 72 is added to 37, 20, 58, 22, 52, 36, 48. What is the new mean, to one decimal place?

    Answer: _____

The Math Meridian

Answer key · Version X3652

How changes affect mean, median, IQR and range worksheet – Grade 8 · Grade 8 · to reprint this sheet or check the answers, enter X3652 on the skill page.

1. **150**
2. **34**
3. **70**
4. **31**
5. **52**
6. **32**
7. **33**
8. **A (The median)**
9. **85**
10. **A (The median)**
11. **A (It stays the same)**
12. **36.8**
13. **42.3**
14. **28.4**
15. **49.8**
16. **5.1**
17. **110**
18. **5.2**
19. **48**
20. **43.1**

The Math Meridian