2. If the mean of 12, 15, 18, x is 15, what is x?

3. The numbers 2, 4, 6, 8, 10, x have a mean of 6. Find x.

4. If x, 14, 16 have a mean of 12, what is x?

5. Eight numbers are 5, 5, 6, 6, 7, 7, 8, x and their mean is 6. Find x.

6. The seven numbers 10, 12, 14, 16, 18, 20, x have a mean of 14. What is x?

7. Nine numbers are 1, 2, 3, 4, 5, 6, 7, 8, x and their mean is 5. Find x.

8. The five numbers 0, 4, 6, 10, x have a mean of 5. Find x.

9. If the six numbers 9, 9, 9, 9, 9, x have a mean of 9, what is x?

10. The four numbers 2, 5, 8, x have a mean of 5. Find x.

11. If 11, 13, 15, 17, 19, x have mean 15, what is x?

12. The four numbers 3, 4, 7, x have a mean of 5.5. Find x.

13. Seven numbers are 0, 2, 4, 6, 8, 10, x and their mean is 5. Find x.

14. The five numbers 14, 16, 18, 20, x have a mean of 17. What is x?

15. If 1, 1, 2, 2, 3, x have a mean of 2, find x.

16. Two equal numbers and 9 (x, x, 9) have a mean of 5. Find x.

17. The six numbers 4, 6, 8, 10, 12, x have a mean of 8. Find x.

18. Eight numbers are 10, 10, 11, 11, 12, 12, 13, x and their mean is 11.5. Find x.

Impact on mean & median: removing an outlier

19. For the set 2, 4, 5, 7, 100: find the mean and median. Then remove 100 and find the new mean and median. Did mean and median increase, decrease, or stay the same?

20. For the data 10, 12, 14, 15, 16: find mean and median. Remove the smallest value (10) and find the new mean and median. What changed?

21. For 3, 3, 3, 3, 3: remove one 3. Compare the mean and median before and after.

22. For 1, 2, 3, 4, 5, 100: find mean and median, then remove 100 and find the new mean and median. Describe the changes.

23. For 20, 21, 22, 23: remove the largest value (23). Compare mean and median before and after.

24. For 5, 7, 9, 11, 50: remove 50 and compare mean and median before and after.

25. For 6, 8, 8, 9, 10: remove 6 (the smallest) and compare mean and median before and after.

26. For 100, 200: remove 200 and compare mean and median before and after.

27. For 4, 5, 6, 7, 8: remove 4 and compare mean and median before and after.

28. For 2, 9, 9, 9, 9: remove 2 and compare mean and median before and after.

29. For 1, 1, 1, 10: remove 10 and compare mean and median before and after.

30. For 3, 6, 9: remove 9 and compare mean and median before and after.

31. For 7, 7, 8, 100: remove 100 and compare mean and median before and after.
32. For 15, 16, 17, 18, 19: remove 17 (a middle value). Compare mean and median before and after.
33. For 0, 0, 0, 0, 100: remove 100 and compare mean and median before and after.
34. For 4, 5, 6, 7: remove 4 and compare mean and median before and after.

Impact on mean & median: increasing an outlier

35. Start with 2, 4, 6, 8, 10. Replace 10 by 50. Compare mean and median before and after.
36. For 5, 6, 7, 8, replace 8 by 20. How does the mean and median change?
37. For 1, 2, 3, 100, change 100 to 1000. Compare mean and median before and after.
38. For 3, 3, 3, 3, change one 3 to 30. What happens to mean and median?
39. For 10, 20, 30 change 30 to 100. Compare mean and median before and after.
40. For 4, 5, 6, 7, 8 replace 8 by 100. How do mean and median change?
41. For 1, 5, 9, 13 replace 13 by 25. Compare mean and median.
42. For 2, 2, 3, 4, 5 replace 5 by 50. What changes occur?
43. For 7, 8, 9, 10 replace 10 by 11. Compare mean and median.
44. For 1, 2, 3, 4, 100 replace 100 by 101. What happens to mean and median?
45. For 6, 6, 7, 8, 40 replace 40 by 80. Compare mean and median.
46. For 5, 7, 9, 11, 13 replace 13 by 100. What happens?
47. For 1, 1, 2, 3, 4 change one of the 1's to 50. Compare mean and median.
48. For 20, 30 change 30 to 100. Compare mean and median before and after.
49. For 3, 4, 5, 6 change 6 to 9. What happens to mean and median?
50. For 8, 9, 10 change 10 to 20. Compare mean and median.