

GRADE 6

Mean, Median, Mode & Range

Complete Statistics Practice Pack

6 Worksheets • Practice + Reasoning • Separate Answer Keys

Worksheet 1 — Mean

Instructions: Show your working. Put data in order where needed and explain your reasoning for challenge questions.

1. Find the mean of 8, 12, 15, 10, 5.
2. Find the mean of 14, 18, 11, 17, 20.
3. Find the mean of 6, 9, 13, 8, 14, 10.
4. Find the mean of 25, 30, 18, 22, 35.
5. Find the mean of 7, 7, 12, 16, 18.
6. The scores are 12, 15, 9, 14 and 10. What is the mean score?
7. A student reads 18, 22, 15, 25 and 20 pages on five days. Find the mean.
8. Five numbers have a mean of 24. Four are 18, 21, 27 and 30. Find the fifth number.

Answer Key — Mean

1. 10
2. 16
3. 10
4. 26
5. 12
6. 12
7. 20 pages
8. 24

Worksheet 2 — Median

Instructions: Show your working. Put data in order where needed and explain your reasoning for challenge questions.

1. Find the median: 7, 12, 4, 9, 15.
2. Find the median: 18, 11, 25, 14, 20, 9, 16.
3. Find the median: 32, 18, 25, 11, 29.
4. Find the median: 6, 14, 8, 20, 11, 17.
5. Find the median: 45, 31, 28, 52, 39, 41, 35.
6. Find the median: 10, 15, 12, 18, 14, 11.
7. Times are 22, 18, 25, 20, 17, 30, 21 minutes. Find the median.
8. Can one whole number be added to 4, 7, 9, 12, 15 to make the median exactly 10? Explain.

Answer Key — Median

1. 9
2. 16
3. 25
4. 12.5
5. 39
6. 13
7. 21 minutes
8. No. Adding one whole number leaves six values, so the median is the average of two middle values; it cannot be exactly 10 for this set.

Worksheet 3 — Mode & Frequency

Instructions: Show your working. Put data in order where needed and explain your reasoning for challenge questions.

1. Find the mode: 4, 7, 4, 9, 6, 4, 8.
2. Find the mode: 12, 15, 12, 18, 15, 12, 20.
3. Find the mode: 5, 8, 11, 14, 17.
4. Find the mode(s): 6, 9, 6, 11, 9, 14.
5. Find the mode(s): 20, 18, 22, 20, 25, 18, 20, 18.
6. Find the mode(s): 3, 3, 5, 7, 7, 9, 11, 11.
7. Favourite fruit: Apple, Banana, Apple, Orange, Banana, Apple, Mango, Banana. Find the mode.
8. Give six numbers in which 7 is the only mode.

Answer Key — Mode & Frequency

1. 4
2. 12
3. No mode
4. 6 and 9
5. 18 and 20
6. 3, 7 and 11
7. Apple
8. Answers vary; e.g. 3, 7, 7, 5, 7, 9.

Worksheet 4 — Range & Spread

Instructions: Show your working. Put data in order where needed and explain your reasoning for challenge questions.

1. Find the range: 8, 12, 5, 19, 14.
2. Find the range: 35, 28, 42, 31, 26.
3. Find the range: 105, 98, 120, 115, 110.
4. Find the range: 7, 7, 12, 15, 18, 21.
5. Find the range: 46, 52, 39, 61, 55, 44.
6. Temperatures are 24°C , 27°C , 22°C , 29°C and 25°C . Find the range.
7. A data set has range 12 and minimum 8. Find the maximum.
8. Which has greater range? A: 12, 15, 18, 20, 21. B: 7, 10, 14, 16, 19.

Answer Key — Range & Spread

1. 14
2. 16
3. 22
4. 14
5. 22
6. 7°C
7. 20
8. B; A has range 9 and B has range 12.

Worksheet 5 — Comparing Data Sets

Instructions: Show your working. Put data in order where needed and explain your reasoning for challenge questions.

1. A: 6, 8, 10, 12, 14. B: 2, 8, 10, 12, 18. Find mean and range for each.
2. Which set has greater spread? A: 15,16,17,18,19. B: 10,14,17,20,24.
3. Find median and mode: 4, 5, 5, 7, 8, 8, 8, 10.
4. Scores are 12, 15, 15, 16, 17. Find mean, median and mode.
5. Two classes have mean 72. Class A has range 8 and Class B has range 24. Which has more variation? Explain.
6. A: 20,20,21,22,22. B: 16,19,22,25,23. Find mean and range for each.
7. A data set has mean 18 and five values. Four are 12,16,20,25. Find the missing value.
8. Create five whole numbers with mean 10 and range 8.

Answer Key — Comparing Data Sets

1. A: mean 10, range 8. B: mean 10, range 16.
2. B; range 14 versus A's 4.
3. Median 7.5; mode 8.
4. Mean 15; median 15; mode 15.
5. B has more variation because its range is larger.
6. A: mean 21, range 2. B: mean 21, range 9.
7. 17.
8. Answers vary; e.g. 6, 8, 10, 12, 14.

Worksheet 6 — Statistics Challenge

Instructions: Show your working. Put data in order where needed and explain your reasoning for challenge questions.

1. Six numbers have mean 15. Five are 8,11,14,17,20. Find the sixth.
2. Five numbers have median 18. Four are 9,15,18,25. Give one possible fifth number.
3. A data set has range 30 and minimum 14. Find maximum.
4. 5,7,7,9,12,x has mean 8. Find x and the median.
5. Five numbers have mean 20 and range 12. Four are 16,18,22,24. Find the fifth and check the range.
6. Give four whole numbers with mean 10, median 10 and range 6.
7. Four numbers have mean 18. One number is increased by 8. What is the new mean?
8. For 12,15,15,18,20,20,20,25 find mean, median, mode and range.

Answer Key — Statistics Challenge

1. 20.
2. Any value from 18 to 25; e.g. 20.
3. 44.
4. $x = 8$; median = 8.
5. Fifth = 20; actual range is 8, so the stated range 12 is impossible with those four values.
6. Example: 7,9,11,13.
7. 20.
8. Mean 18.125; median 18; mode 20; range 13.