

Worksheet: Mean, Median, and Mode



Q1: The table shows the average April rainfall, in inches, for 12 cities. If another city, with the value 2.1, is added to this list, which of the following would be true?

4.5	2.1	4.4	2.1	3.2	3.9
1.9	2.3	1.3	2.8	3.0	3.1

- A The median would increase.
- B The mean would decrease.
- C The mean would increase.
- D The mode would decrease.

Q2: Anthony would like to estimate how many books he reads per week on average. For six weeks, he has been producing a list of the books he had just read. His results are given in the table.

Week	1	2	3	4	5	6
Numbers of Books	2	3	1	2	0	1

Assuming that these six weeks are representative of his reading habits, what is the average number of books does Anthony read per week?

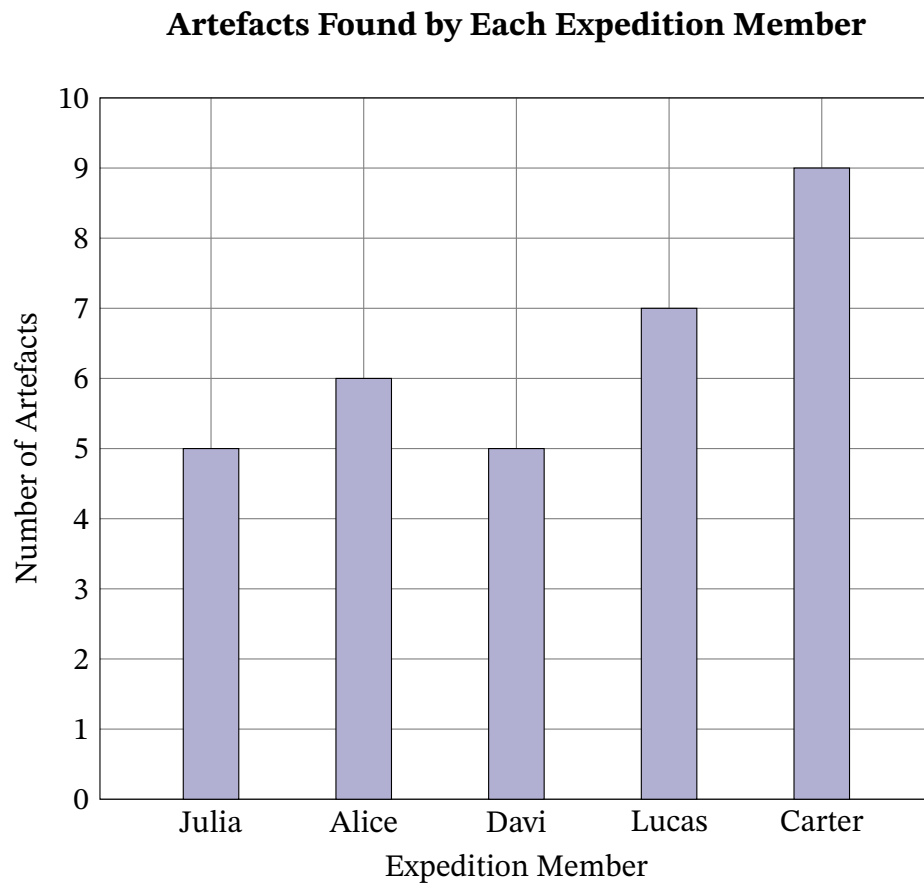
- A 1.5
- B 0.67
- C 3
- D 1.8
- E 0.5

Q3: By using the data in the table, calculate the mean number. Give your answer to two decimal places.

Number	0	1	2	3	4
Frequency	5	15	22	40	6

- A 40.60
- B 2.51
- C 2.36
- D 2.31

Q4: The graph shows the number of artefacts found by each member of an expedition during an excavation at a historical site. What was the most frequent number of artefacts found by a single member?



- A 4 artefacts
- B 7 artefacts
- C 9 artefacts
- D 5 artefacts
- E 6 artefacts

Q5: Determine the mean, median, and mode for the given data.

Name	Anthony	Noah	Olivia	Liam	Matthew	Natalie	Amelia	James
Age	18	9	15	18	10	7	14	5



Question Video

A mean = 12, median = 12, mode = 18.

B mean = 14, median = 10, mode = 18.

C mean = 12, median = 14, mode = 18.

D mean = 12, median = 12, mode = 15.

Q6: Last month, Daniel scored 82, 61, 86, and 82 in his English quizzes. If his lowest score was to be dropped, which of the following would increase?

A mode

B mean

C median

Q7: Liam wants to know the most popular age at which to ride on a particular roller coaster in a theme park. Should he calculate the mean, median, or modal age of the riders?

A Mean age

B Modal age

C Median age

Q8: Find the mean, median, and mode of the following set of daily temperatures: -10°F , -1°F , 2°F , 5°F , 1°F , -6°F , 5°F , -4°F .

A mean= 5°F , median= 0°F , mode= -1°F

B mean= 0°F , median= -1°F , mode= 5°F

C mean= -2°F , median= 0°F , mode= 5°F

D mean= -1°F , median= 0°F , mode= 5°F

E mean= -1°F , median= 5°F , mode= 0°F

Q9: The scores earned on a math test are 86, 80, 76, 68, 73, 85, 74, 70, 71, and 70. Find the mean, median, and mode for the set of data.

A mean= 75.3, median= 73.5, mode= 70

B mean= 83.7, median= 73.5, mode= 70

C mean= 75.3, median= 70, mode= 73.5

D mean= 70, median= 73.5, mode= 75.3

E mean= 73.5, median= 75.3, mode= 70

Q10: The lengths of several poles, in feet, are 30, 44, 60, 64, and 34. If a pole with a length of 28 is added to this list, which of the following statements would be true?

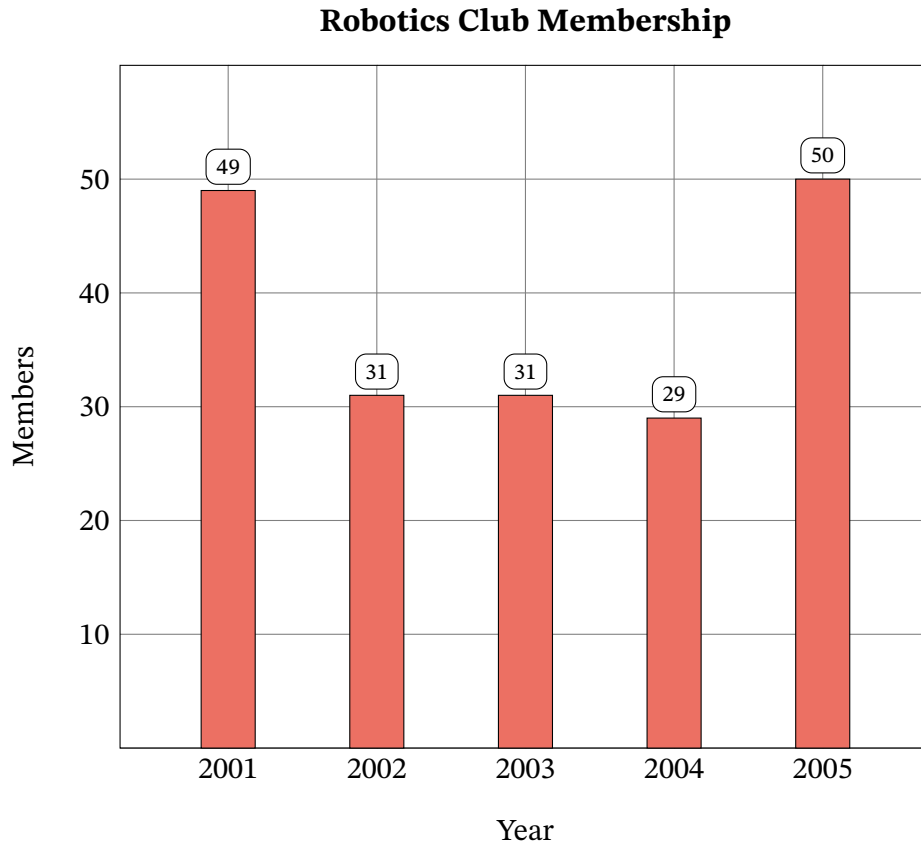
- A The range would decrease.
- B The mean would increase.
- C The median would decrease.
- D The median would increase.

Q11: Jacob collected the following data that represents the number of books his friends read last year. Which measure of data is represented by 9.5 books?

1	5	12	6	2	7	3	14	15
13	13	8	2	15	11	15	5	15

- A mode
- B range
- C median
- D mean

Q12: This bar chart shows the yearly membership of a robotics club from 2,001 to 2,005. Find the mean, median, mode, and range of the data.



A mean: 38, median: 31, mode: 31, range: 21

B mean: 47, median: 31, mode: 29, range: 20

C mean: 38, median: 49, mode: 31, range: 22

D mean: 38, median: 31, mode: 50, range: 19

E mean: 31, median: 38, mode: 31, range: 21

Q13: In five plays, the Hawks completed passes for 5, 13, -5 , 1, and 16 yards.

What was the mean number of yards per pass?

A 6

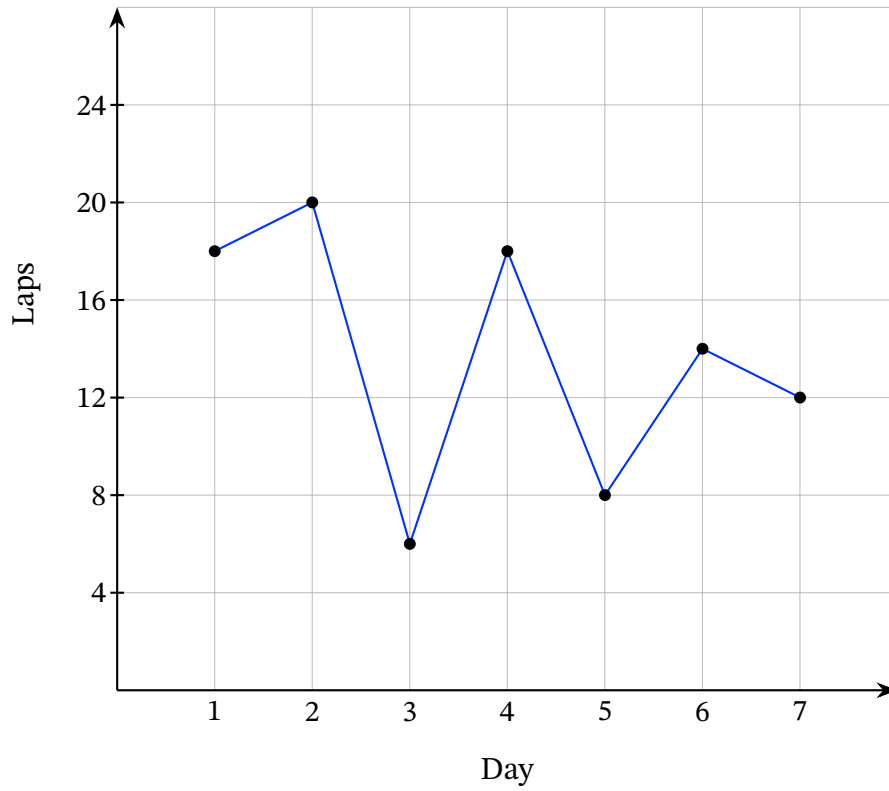
B -5

C 16

D 5

Q14: What is the mode of the data represented in the graph?

Bane's running schedule



- A 14 laps
- B 8 laps
- C 18 laps
- D 6 laps

Q15: The table shows the number of books that 30 students read in a year. Find the mode number of books read.

1	9	8	4	8	8	6	9	8	8
6	6	3	1	2	5	4	3	8	3
4	4	10	7	5	8	7	7	8	2

- A 10
- B 1
- C 4
- D 8

Q16: The table shows the frequency distribution of exam marks for Science students in a university. Calculate the mean mark.

Mark	0–9	10–19	20–29	30–39	40–
Frequency	7	4	18	12	5

- A 30.87
- B 20.87
- C 238
- D 25.87

Q17: David wants to find out the average age of people who go swimming on a Saturday morning. He records the following data on a particular Saturday morning: 5, 12, 24, 19, 64, 38, 71, 13, 14, 41, 3.

► Calculate the mean of the data giving your answer accurate to one decimal place.

A 23.3

B 19.0

C 30.4

D 25.3

E 27.6

► Calculate the median of the data.

A 24

B 14

C 16.5

D 27.6

E 19

► Calculate the mode of the data.

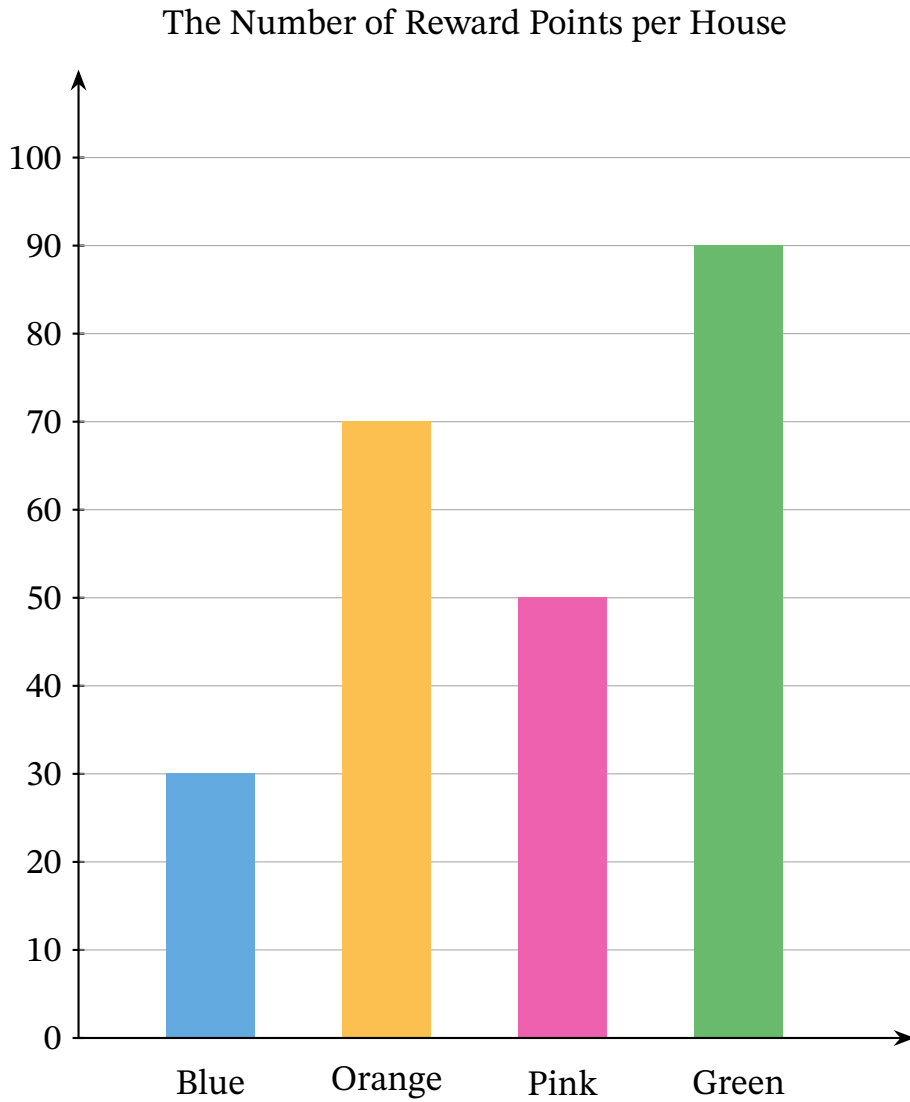
- A 3
- B 71
- C 27.6
- D 19
- E There is no mode.

► Calculate the range of the data.

- A 59
- B 71
- C 66
- D 61
- E 68

Q18: At a school, every student belongs to one of four houses, and the houses compete throughout the year to earn points.

The graph shows how many points each house had scored at the end of the year.



► Calculate the mean number of points earned.

- A 30
- B 90
- C 60
- D 48
- E 20

► Describe what the mean represents.

- A The average between the third and fourth terms.
- B The number of points that each house would have earned if they had all earned the same number of points.
- C The difference between the largest value in the list and the smallest value in the list.

Q19: The table shows the salaries, in thousands of dollars, of ten employees in a company.

1	2	3	4	5	6	7	8	9	10
22	24	30	19	95	31	25	96	20	23

► Calculate the mean salary in dollars.

A \$28,900

B \$38,500

C \$24,500

D \$29,000

E \$36,000

► Calculate the median salary in dollars.

A \$25,500

B \$24,500

C \$38,500

D \$24,000

E \$25,000

► Which of these two measures of central tendency more accurately reflects the **majority** of the data?

A The mean

B The median

Q20: The number of books read each month by students in a grade 5 class and a grade 11 class are shown in the given frequency tables.

Number of Books (Grade 5)	Frequency	Number of Books (Grade 11)	Frequency
0	0	0	6
1	1	1	7
2	1	2	8
3	6	3	4
4	9	4	2
5	6	5	1
6	1	6	0
7	0	7	1
8	2	8	0
9	0	9	0
10	1	10	0

► What is the most frequently occurring number of books read per month by grade 5 students?

- A 5
- B 4
- C 10
- D 9

► What is the median of the data for the grade 5 class?

- A 9 books
- B 4 books
- C 5 books
- D 10 books

► What is the most frequently occurring number of books read per month by grade 11 students?

- A 0
- B 2
- C 10
- D 8

► What is the median of the data for the grade 11 class?

- A 8 books
- B 2 books
- C 5 books
- D 0 books

► Based on the data in the tables, which of the following is a valid statement about the number of books read each month by the students in grades 5 and 11?

- A Students in grade 11 do not like reading.
- B Students in grade 11 read fewer books than students in grade 5.
- C Students in grade 5 read fewer books than students in grade 11.
- D Students in grade 5 read shorter books than students in grade 11.

Q21: The ages of people who attend a parent and toddler group are recorded as follows: 2, 3, 29, 31, 4, 33, 2, 2, 1, 40, 3, 3, 24, 31.

► Calculate the mean age, giving your answer to one decimal place.

A 3.5

B 13.5

C 14.2

D 14.9

E 11.9

► Calculate the median age.

A 14.9

B 3

C 4

D 3.5

E 24

► Calculate the modal age.

A 1 and 40

B 2

C 3

D 2 and 3

E 3.5

► Calculate the range of ages.

- A 29
- B 32
- C 38
- D 39
- E 37

► In this instance, given that none of the values would be considered outliers and taking into account the value of the range, which of the three measures of central tendency would be most informative of the **whole** data set?

- A The median
- B The mode
- C The mean

Q22: The data set shows the number of tomatoes growing on each tomato plant in a garden.

7	12	8	3	0	4	4	6	5
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► Find the median of the data.

A 5.4

B 5.5

C 5

D 4

E 4.5

► Calculate the mean of the data, giving your answer correct to the nearest integer.

A 7

B 6

C 5

D 4

E 3

► Find the mode of the data.

A 7

B 6

C 4

D 5

E 3

Q23: Find the mean, median, and mode for the following data set: 26, 19, 55, 27, 14, 18, 26, 10, 42, 40, 33, 5.

A mean = 26, median = 26, mode = 40

B mean = 26.25, median = 26, mode = 26

C mean = 29, median = 26, mode = 26

D mean = 26, median = 23, mode = 26

E mean = 29, median = 23, mode = 40

Q24: A set of four numbers has a range of 7, a median of 13, and a mode of 16. Given that the highest number is also the mode, what are the four numbers?

A 9, 11, 17, 17

B 10, 10, 16, 16

C 9, 10, 16, 16

D 9, 11, 16, 16

Q25: Two values are missing from the shown data set. Given that the median is 67, the range is 44, and the data is listed in ascending order, find the missing values.

43, 47, 62, —, 76, —.

A 70, 87

B 62, 76

C 72, 87

D 72, 76

E 74, 87