1. 44 randomly selected car salespersons were asked the number of cars they generally sell in one week. The results are summarized by the frequency table below.

Number of Cars Sold	Frequency
0	2
1	6
2	7
3	3
4	11
5	6
6	4
7	1
8	3
9	1

Use the frequency table below to find the mean number of cars $\bar{x}$ sold in one week by the sales people asked.

A. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 3.6 cars.

B. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 4 cars.

C. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 3.8 cars.

D. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 3.7 cars.

E. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 3.4 cars.

F. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 4.1 cars.

G. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 3.3 cars.

H. The mean number of cars sold $\bar{x}$ in one week by the sample of sales people is 3 cars.

2. Listed below are a random sample of 28 ages for students taking music classes Southwestern Oregon Community College.

12, 13, 15, 16, 16, 17, 19, 20, 21, 21, 21, 21, 22, 22, 23, 23, 23, 24, 25, 26, 28, 29, 29, 30, 31, 33, 35, 36

What are the mean, median, and mode of this data set.

A. The mean is 25.75, the median is 25, and the mode is 18.

B. The mean is 23.25, the median is 25, and the mode is 21.

C. The mean is 23.25, the median is 22.5, and the mode is 21.

D. The mean is 23.25, the median is 22.5, and the mode is 23.

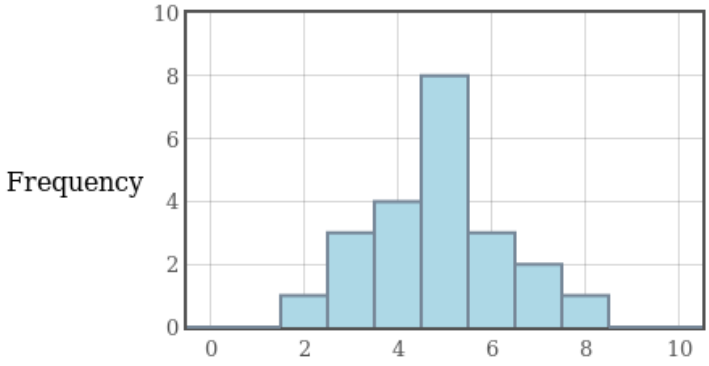
E. The mean is 25.75, the median is 26.5, and the mode is 20.

F. The mean is 23.25, the median is 26.5, and the mode is 23.

G. The mean is 25.75, the median is 25, and the mode is 20.

H. The mean is 25.75, the median is 22.5, and the mode is 18.

3. Consider the data set summarized by the histogram below.



Describe the relationship between the mode and the median of this distribution.

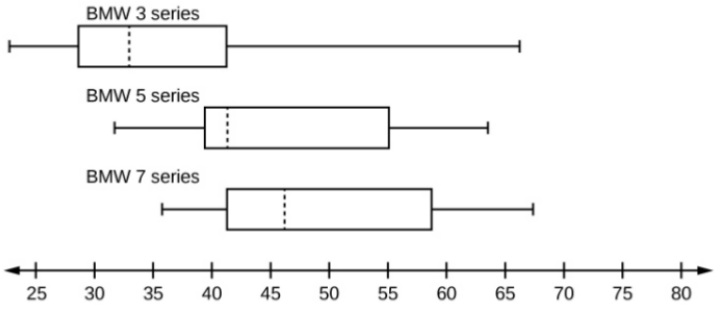
A. The median and the mode are equal.

B. The median and the mode are roughly equal.

C. The median is greater than the mode.

D. The median is less than the mode.

4. A survey was conducted of 130 purchasers of new BMW 3 series cars, 130 purchasers of new BMW 5 series cars, and 130 purchasers of new BMW 7 series cars. In it, people were asked the age they were when they purchased their car. The following box plots display the results.

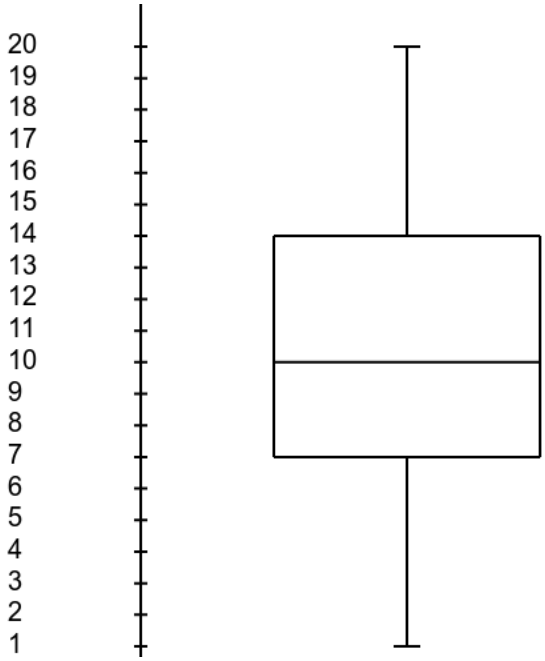


Look at the BMW 3 series. Are there more data points in the interval from 25 to 35 or in the interval from 45 to 70?

A. There are more data points in the interval from 45 to 70.

B. There are more data points in the interval from 25 to 35.

5. Below is a box plot of a set of data.



What is the median of this data set?

A. The median of this data set is 15.

B. The median of this data set is 14.

C. The median of this data set is 6.

D. The median of this data set is 5.

E. The median of this data set is 3.

F. The median of this data set is 10.

G. The median of this data set is 1.

H. The median of this data set is 17.

6. Listed below are a sample of 30 daily high temperatures in Martiniville U.S.A. for one month in order from smallest to largest.

61, 61, 61, 63, 63, 65, 66, 67, 67, 68, 70, 71, 71, 72, 72, 72, 72, 72, 73, 74, 75, 76, 77, 78, 78, 78, 78, 79, 83, 100

What is the mean high temperature $\bar{x}$ of this sample? (If necessary, round your answer to the nearest two decimal places.)

A. The mean high temperature $\bar{x}$ of the sample is 72.4 degrees.

B. The mean high temperature $\bar{x}$ of the sample is 71.7 degrees.

C. The mean high temperature $\bar{x}$ of the sample is 72.9 degrees.

D. The mean high temperature $\bar{x}$ of the sample is 72.8 degrees.

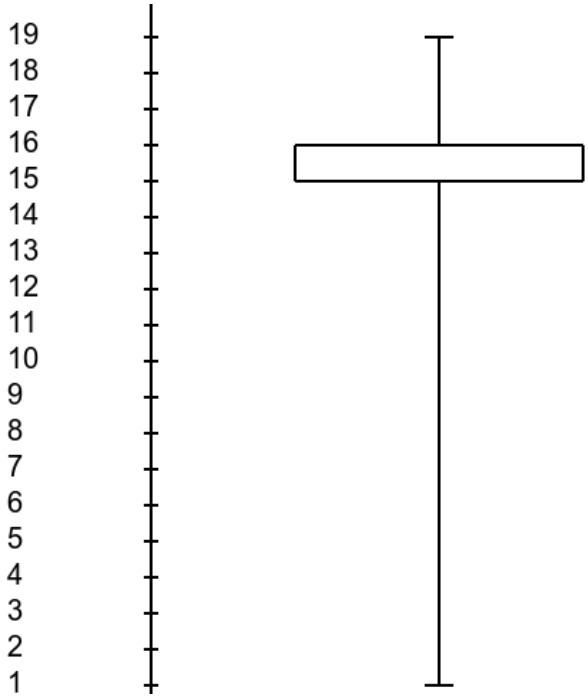
E. The mean high temperature $\bar{x}$ of the sample is 72.6 degrees.

F. The mean high temperature $\bar{x}$ of the sample is 72.1 degrees.

G. The mean high temperature $\bar{x}$ of the sample is 72.5 degrees.

H. The mean high temperature $\bar{x}$ of the sample is 73 degrees.

7. Below is a box plot of a set of data.



According to the $1.5 \cdot IQR$ rule, does this data set contain any outliers?

A. No. This data set contains no outliers according to the $1.5 \cdot IQR$ rule.

B. Yes. This data set contains at least 1 outlier according to the $1.5 \cdot IQR$ rule.

8. Listed below are a random sample of commute times to work (in minutes) of 20 for workers in Martiniville, U.S.A. in order from smallest to largest.

0, 11, 13, 13, 15, 17, 17, 19, 19, 20, 25, 26, 35, 42, 43, 43, 56, 64, 64, 82

What is the standard deviation of commute time s of this data set? (If necessary, round your answer to the nearest two decimal places.)

A. The standard deviation of commute times s is 22.31 minutes.

B. The standard deviation of commute times s is 21.11 minutes.

C. The standard deviation of commute times s is 22.01 minutes.

D. The standard deviation of commute times s is 22.51 minutes.

E. The standard deviation of commute times s is 22.21 minutes.

F. The standard deviation of commute times s is 21.61 minutes.

G. The standard deviation of commute times s is 21.71 minutes.

H. The standard deviation of commute times s is 20.81 minutes.