

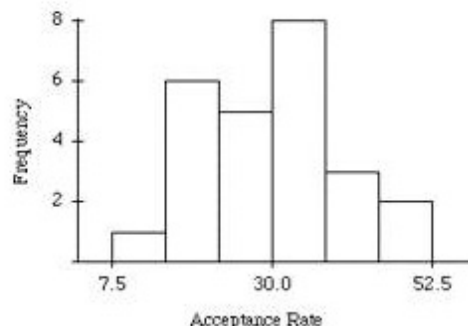
1. From March 1981 to February 1983 the number of burglaries committed each month in a Georgia town was recorded. They are given in the chart below. Between months 12 and 13 a law was enacted requiring citizens to own a gun. Town officials felt this law might decrease the number of burglaries, by acting to deter criminals.

Month	Burglaries	Month	Burglaries
1	4	13	0
2	7	14	6
3	10	15	1
4	6	16	4
5	5	17	4
6	1	18	6
7	4	19	2
8	1	20	3
9	0	21	0
10	1	22	2
11	6	23	5
12	2	24	1

The mean number of burglaries for months 13 to 24, i.e., those months after the law was enacted, is

- A. 2.83.
- B. 3.38.
- C. 2.50.

2. The following histogram represents the distribution of acceptance rates (percent accepted) among twenty-five business schools in 1998. In each class interval, the left endpoint is included but not the right.



Which statement is true?

- A. The median rate must be less than 30.
- B. The first quartile must be at least 15 but no larger than 22.5.
- C. Neither of the above.

3. You receive a fax with six bids (in millions of dollars): 2.2, 1.3, 1.9, 1.2, 2.4, and x , where x , is some number that is too blurry to read. Without knowing what x is, the median

- A. is 1.9.
- B. must be between 1.3 and 2.2.
- C. could be any number between 1.2 and 2.4.

4. A sample was taken of the salaries of four employees from a large company. The following are their salaries (in thousands of dollars) for this year.

33 31 24 36

The variance of their salaries is

- A. 5.1.
- B. 26.
- C. 31.

5. For a physics course containing eleven students, the maximum point total for the quarter was 200. The point totals for the eleven students are given in the stemplot below.

11		6	8	
12		1	4	8
13		3	3	7
14		2	6	
15				
16				
17		9		

Which of the following statements is true about the stemplot?

- A. Because there are seven stems, the median must be contained in the fourth smallest stem and be between 140 and 150.
- B. We can compute the mean number of points for the eleven students from the information in the stemplot.
- C. Because of the small sample size, it would be impossible to split the stems in this stemplot.

6. Which of the following measures are not affected by outliers?

- A. The mean
- B. The standard deviation
- C. The IQR

7. Does the value of the standard deviation depend on the value of the mean?

- A. Yes. If the mean gets larger the standard deviation will also get larger.
- B. Yes. You need to know the mean to be able to calculate the standard deviation.
- C. No. The center of a distribution and the spread are not related.

8. A teacher gave a 25 question multiple choice test. After scoring the tests, she computed a mean and standard deviation of the scores. The standard deviation was 0. Based on this information

- A. All the students had the same score.
 - B. She must have made a mistake.
 - C. About half the scores were above the mean.
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9. The 5-number summary of scores on a test is

35 60 65 70 90

Based on this information

- A. There are no outliers.
 - B. There are low outliers.
 - C. There are both high and low outliers.
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10. Total SAT scores for ten randomly selected students are:

1020 1260 1100 1260 1100 1020 960 1000 990 1160

The mean of these scores is

- A. 1087
- B. 1060
- C. 1100