

1. The given figures display three density curves, each with three points marked on it.



Figure (a): The mean is C and the median is B;
Figure (b): The mean is A and the median is A;
Figure (c): The mean is B and the median is C.
Figure (a): The mean is C and the median is B;
Figure (b): The mean is A and the median is A;
Figure (c): The mean is A and the median is B.
Figure (a): The mean is B and the median is A;
Figure (b): The mean is A and the median is A;
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- Figure (c): The mean is B and the median is A.
- 2. A modified box plot always has markers for mild and extreme outliers.
 - Oa. True

b. False

3. For the given box plot, identify the correct five-number summary.



4. As part of a new physical fitness program, the Crooked Oak Middle School in Oklahoma City, Oklahoma, records the number of sit-ups each sixth-grade student can do in one minute. A random sample for males and females was obtained and the given box plots were drawn.



Identify the correct statement about the similarities and differences of the two distribution.

- Both distributions are centered near 29 and are similar in variability, but they differ in skewness.
- Both distributions are positively skewed and are similar in variability, but they are centered near different values.
- Both distributions are centered near 29 and are positively skewed, but they differ in variability.
- 5. Cunard recently launched the largest passenger ship ever built—the Queen Mary 2. This ship has 15 restaurants, five swimming pools, a casino, a ballroom, and even a planetarium. A random sample of large passenger liners was obtained and the cruising speed of each was recorded. The sample mean was 25.6 knots and the standard

deviation was 3.4 knots. Assume the shape of the speed distribution is approximately normal.

Fill in the blank. (Give your answer to one decimal place.)

The values of three standard deviations away from the mean are _____ and _____ , respectively.

6. Fill in the blanks.

The word _____ is usually associated with the complement of an event. The word _____ is usually associated with union. The word _____ is usually associated with intersection.

7. This question could be different for each try. Every passenger arriving at the Las Vegas McCarran International Airport is classified as American (A) or Foreign (F), and by the number of checked bags (assume five is the maximum).

The sample space for the experiment is $S = \{A0,A1,A2,A3,A4,A5,F0,F1,F2,F3,F4,F5\}$

Identify the outcome for a specific outcome

- 8. The probability of any event is always a number between 0 and 1.
 - C True
 - C False
- **9.** For any event A, P(A) + P(A') = 1
 - O True
 - C False

- **10.** For the following scenarios, indicate which type of probability the story represents. The chance that you will get the internship that you are applying for.
 - subjective

- empirical
- equally likely (theoretical)

The probability that you will win a prize at a raffle.

- subjective
- empirical
- equally likely (theoretical)

The probability that a Purdue student is a computer science major.

- subjective
- empirical
- equally likely (theoretical)

The probability that you will receive an A in this class.

- subjective
- empirical
- equally likely (theoretical)