

Continuous Distributions

MULTIPLE CHOICE

1. The center of a normal curve is
- always equal to zero
 - is the mean of the distribution
 - cannot be negative
 - is the standard deviation

ANS: B

PTS: 1

TOP: Continuous Probability Distributions

2. A normal distribution with a mean of 0 and a standard deviation of 1 is called
- a probability density function
 - an ordinary normal curve
 - a standard normal distribution
 - None of these alternatives is correct.

ANS: C

PTS: 1

TOP: Continuous Probability Distributions

3. In a standard normal distribution, the probability that Z is greater than zero is
- 0.5
 - equal to 1
 - at least 0.5
 - 1.96

ANS: A

PTS: 1

TOP: Continuous Probability Distributions

4. For any continuous random variable, the probability that the random variable takes on exactly a specific value is
- 1.00
 - 0.50
 - any value between 0 to 1
 - almost zero

ANS: D

PTS: 1

TOP: Continuous Probability Distributions

5. Which of the following is **not** a characteristic of the normal probability distribution?
- The mean, median, and the mode are equal
 - The mean of the distribution can be negative, zero, or positive
 - The distribution is symmetrical
 - The standard deviation must be 1

ANS: D

PTS: 1

TOP: Continuous Probability Distributions

6. Larger values of the standard deviation result in a normal curve that is
- shifted to the right
 - shifted to the left
 - narrower and more peaked
 - wider and flatter

ANS: D

PTS: 1

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7. For a normal distribution, a negative value of z indicates
- a mistake has been made in computations, because z is always positive
 - the area corresponding to the z is negative
 - the z is to the left of the mean
 - the z is to the right of the mean

ANS: C

PTS: 1

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8. The standard deviation of a standard normal distribution
- is always equal to zero
 - is always equal to one
 - can be any positive value
 - can be any value

ANS: B

PTS: 1

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9. If the mean of a normal distribution is negative,
- the standard deviation must also be negative
 - the variance must also be negative
 - a mistake has been made in the computations, because the mean of a normal distribution cannot be negative
 - None of these alternatives is correct.

ANS: D

PTS: 1

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10. The highest point of a normal curve occurs at
- one standard deviation to the right of the mean
 - two standard deviations to the right of the mean
 - approximately three standard deviations to the right of the mean
 - the mean

ANS: D

PTS: 1

TOP: Continuous Probability Distributions

11. A standard normal distribution is a normal distribution
- with a mean of 1 and a standard deviation of 0
 - with a mean of 0 and a standard deviation of 1
 - with any mean and a standard deviation of 1
 - with any mean and any standard deviation

ANS: B

PTS: 1

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12. Z is a standard normal random variable. The $P(-1.20 \leq Z \leq 1.50)$ equals
- 0.0483
 - 0.3849
 - 0.4332
 - 0.8181

ANS: D

PTS: 1

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