Week 2 Assignment 2

1. Which of the following is a true statement about normal distribution?
   a) The mean is greater than the median.
   b) The mean is less than the median.
   c) The mean is equal to the median.
   d) The mean is not defined.

2. In a normal distribution, the standard deviation is always:
   a) A positive number.
   b) A negative number.
   c) A zero.
   d) None of the above.

3. If a random variable follows a normal distribution with a mean of 50 and a standard deviation of 10, what is the probability that the variable is greater than 60?
   a) 0.2275
   b) 0.7725
   c) 0.5000
   d) 0.3375

4. A normal distribution is symmetric about the mean. True or False?
   a) True
   b) False

5. In a normal distribution, 68% of the data falls within one standard deviation of the mean. True or False?
   a) True
   b) False

6. The normal distribution is:
   a) A discrete distribution.
   b) A continuous distribution.
   c) A binomial distribution.
   d) A Poisson distribution.

7. What is the probability of a value being greater than 50 in a normal distribution with a mean of 50 and a standard deviation of 10?
   a) 0.5000
   b) 0.3174
   c) 0.6826
   d) 0.2248

8. In a normal distribution, the mean is always equal to the median. True or False?
   a) True
   b) False

9. A normal distribution is:
   a) Bell-shaped.
   b) Skewed.
   c) Uniform.
   d) None of the above.

10. The normal distribution is:
    a) A discrete distribution.
    b) A continuous distribution.
    c) A binomial distribution.
    d) A Poisson distribution.

11. A normal distribution is:
    a) A discrete distribution.
    b) A continuous distribution.
    c) A binomial distribution.
    d) A Poisson distribution.

12. The normal distribution is:
    a) A discrete distribution.
    b) A continuous distribution.
    c) A binomial distribution.
    d) A Poisson distribution.

13. The normal distribution is:
    a) A discrete distribution.
    b) A continuous distribution.
    c) A binomial distribution.
    d) A Poisson distribution.

14. The normal distribution is:
    a) A discrete distribution.
    b) A continuous distribution.
    c) A binomial distribution.
    d) A Poisson distribution.

15. The normal distribution is:
    a) A discrete distribution.
    b) A continuous distribution.
    c) A binomial distribution.
    d) A Poisson distribution.