Assignment 1

1. Which of the following intervals is not valid?

A. [0, 10]  
B. (-∞, 0)  
C. (5, ∞)  
D. (-4, 7]

2. What is the following expression true or false?

A. If a << b, then a + b = b + a  
B. If a << b, then a - b = b - a  
C. If a << b, then a * b = b * a  
D. If a << b, then a / b = b / a

3. The zeros of the function f(x) = x^2 - 4x + 3 are:

A. 1 and 3  
B. -1 and -3  
C. 1 and -3  
D. -1 and 3

4. Fig. 5: A normal distribution curve.

The value of the parameter $\mu$ is: $a$.  

5. The mean of a normal distribution is $\mu$ and the standard deviation is $\sigma$.

The value of $\sigma$ is: $a$.  

6. The area under the curve of a normal distribution is:

A. 1  
B. 2  
C. 0  
D. -1

7. Let $x$ be a variable that can take any real number.  

Which of the following statements is true?

A. $x^2 + 1 = x^2$  
B. $x^2 + 1 = x^2 + 1$  
C. $x^2 + 1 = x^2$  
D. $x^2 + 1 = x^2 + 1$

8. Let $x$ be a variable that can take any real number.

What statement is correct?

A. $x^2 + 1 = x^2$  
B. $x^2 + 1 = x^2 + 1$  
C. $x^2 + 1 = x^2$  
D. $x^2 + 1 = x^2 + 1$

9. Let $x$ be a variable that can take any real number.

What statement is correct?

A. $x^2 + 1 = x^2$  
B. $x^2 + 1 = x^2 + 1$  
C. $x^2 + 1 = x^2$  
D. $x^2 + 1 = x^2 + 1$

10. Let $x$ be a variable that can take any real number.

What statement is correct?

A. $x^2 + 1 = x^2$  
B. $x^2 + 1 = x^2 + 1$  
C. $x^2 + 1 = x^2$  
D. $x^2 + 1 = x^2 + 1$