**#5. Find a value, X0, such that µ = 160 and δ2 = 256**

a)P(X < X0) = 0.16

b) P(X≤ X0) = 0.75

**#16. A sample of size n = 20 is randomly selected from a normal population with mean µ = 90 and standard deviation = 5. Find the following:-**

1. P (x > 95) the x has a bar over the top on all of the problems a-d in this section
2. P (x < 93)
3. P (82 < x < 91)
4. P (x < 89)

**#4. Consider the following hypothesis test:**

H0: µ = 5

Ha: µ = > 5

Assume the test statistics are as shown below. Compute the corresponding p-values and make the appropriate conclusions based on α = .05.

1. Z = 1.82 b. z = .45 c. z = 1.5

**#7. Consider the following hypothesis test.**

H0:µ = 25

Ha:µ ≠25

A sample of 80 is used and the population standard deviation is 10. Use α = 0.05. Compute the value of the test statistic z and specify your conclusion for each of the following sample results.

1. X = 22.0
2. X = 24.0
3. X= 23.5
4. X = 22.8

(x has a bar above it on each of the above problems)