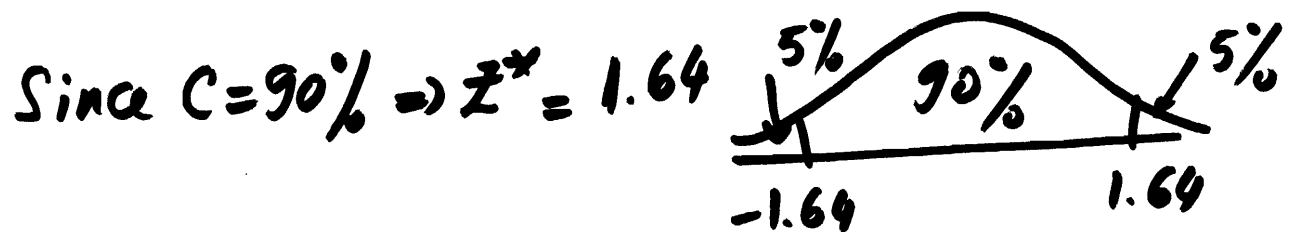


NAME: _____

STAT 226, Section D—Quiz 9 (4 pts.)

The Bona Fide Washing Machine Company knows that the standard deviation of the lengths of life of motors received from supplier I is 400 hours. Calculate the 90% percent confidence interval for the mean number length of life motors received from this supplier, based on a sample of 40 motors for which the mean length of time was 4500 hours.

$$\sigma = 400 ; n = 40 ; \bar{x} = 4500 ; C = 90\%$$



$$CI \text{ is: } \bar{x} \pm z^* \frac{\sigma}{\sqrt{n}}$$

$$\Rightarrow 4500 \pm 1.64 * \frac{400}{\sqrt{40}} \Rightarrow$$

$$\Rightarrow (4396.28, 4603.72)$$