# Quiz 4 (Version A) Solutions

Version B is a permutation of Version A.

1. If one wants to develop a 90% confidence interval for the mean $\mu$ of a normal population, when the standard deviation $\sigma$ is known, the confidence level is
   A. .10
   B. .45
   C. .90
   D. 1.645

   **ANSWER:** C
2. A 99% confidence interval for the mean $\mu$ of a normal population when the standard deviation $\sigma$ is known is found to be 98.6 to 118.4. If the confidence level is reduced to .95, the confidence interval for $\mu$
   A. becomes wider
   B. becomes narrower
   C. remains unchanged
   D. None of the above answers are correct.

   **ANSWER:** B
3. In developing a confidence interval for the population mean $\mu$, a sample of 50 observations was used, and the confidence interval was $15.24 \pm 1.20$. Had the sample size been 200 instead of 50, the confidence interval would have been
   A. $7.62 \pm 1.20$
   B. $15.24 \pm .30$
   C. $15.24 \pm .60$
   D. $3.81 \pm 1.20$
   E. None of the above answers are correct.

   **ANSWER:** C