1. Jane Smith is a student in the MBA 751 Econometrics course and she received an 83.6% on her final exam grade. The mean of exam scores is expected to be a 75% with a standard deviation of 8.5%. Compute a Z-score for Jane.
2. John Doe is looking at an investment in Acme, Inc. bond offering. Acme, Inc.’s bonds have an annual return of 17.2% (i.e., mean gain of 17.2%) with a standard deviation of 21.5%. A return of 0% means the value of the bond doesn't change, a negative return means that the bond loses money, and a positive return means that the bond gains money. What percent of years does this bond lose money? (NOTE: This is similar to Ex. 3.8 from Diez.)
3. Mount Saint Mary’s College has conducted a survey of 144 students on the price of textbooks purchased for ACCT201. Prof. Susan Johns wants to determine if her selection of a textbook for next semester has a reasonable cost based on the previous costs for books. The sample mean for the costs of books from the survey was $123.45. The sample standard deviation was $48.24.
   * 1. Calculate the Expected Standard Error.
     2. Construct a 95% Confidence Interval for the sample of book costs. (NOTE: Remember that for a 95% confidence interval the Z-score is 1.96.)
     3. Prof. Johns has developed a hypothesis test to determine the book she has selected with a price of $130.95 is reasonable.
        1. H0 is that the book selection is not reasonable because is fall outside of the confidence interval (found in part ii.)
        2. Ha is that the book selection is reasonable because is fall within the confidence interval (found in part ii.)

Why hypothesis is correct? Why?