**Worksheet:** **Confidence Intervals**

1. Find the value of z\* for the following confidence levels
   1. 95%
   2. 99%
   3. 90%

**Calculate the confidence interval**



1. In a time use study 20 randomly selected managers were found to spend a mean time of 2.4 hours per day on paperwork. The standard deviation of the 20 scores was 1.30 hours. Construct a 98% confidence interval for the mean time spent on paperwork by all managers.
2. A random sample of 19 women results in a mean height of 63.85 inches. Other studies have shown that women’s heights are normally distributed with a standard deviation of 2.5 inches. Construct a 90% confidence interval for the mean height of all women.
3. The National Center for Education Statistics surveyed 4400 college graduates about the lengths of time required to earn their bachelor’s degrees. The mean was 5.15 years and the standard deviation was 1.68 years. Based on the above information, construct a 98% confidence interval for the mean time required to earn a bachelor’s degree by all college students.
4. A random sample of 60 female members of health clubs in Los Angles showed that they spend on average 4 hours per week doing physical exercise with a standard deviation of .75 hours. Find a 95% confidence interval for the population mean .