1. In a survey of 5000 women, 3876 say they change their nail polish once a week. Construct a 98% confidence interval for the population proportion of women who change their nail polish once a week.

(.7615,.7889)

1. You wish to estimate, with 95% confidence, the population proportion of US adults who read fiction books. Your estimate must be accurate within 3% of the population proportion.
2. No preliminary estimate is available. Find the minimum sample size needed.

n=1068

1. Find the minimum sample size needed, using prior study that found that 51% of US adults read fiction books

n=1067

1. If (24, 34) is a confidence interval for population mean, find sample mean and margin of error

Sample mean=29 E=5

1. The following data set represents the amount of time(in hours) spent playing video games in a given Saturday for 30 high school students.

3 3 4 5 5 6 2 1 8 10

2 2 3 4 5 4 6 2 8 7

3 4 7 4 1 5 6 7 8 9

a. Find the point estimate for the population mean(4.8)

b. Find the margin of error for 95% confidence interval for population mean(0.8696)

c. Construct a 94% confidence interval(3.9656,5.6344)

1. The following data represents the average number of minutes played for a random sample of professional basketball players in a recent season.

33.9 37.6 41.4 51.0 38.9

a. Find the sample mean

b. Find the sample standard deviation

c. What assumption do you need in order to build a 90% confidence interval?

d. Construct a 90% confidence interval

e. Assume ơ=4.89, construct a 95% confidence interval