

Due: Today

Solve these problems:

- (1) The lengths of a random selection of popular children’s animated films are listed here. Estimate the true mean length of all children’s animated films with 90% confidence.

Film lengths	
93	
83	
76	
92	
77	
81	
78	
100	
78	
76	
75	
Mean:	82.636
St Dev:	8.4885

- (2)
- a. A survey of 75 patients at a doctor’s office found the mean amount spent on a visit to be \$244.80. Historically, the standard deviation of this variable is \$28.62. Find the 99% confidence interval for the true mean doctor visit fee.
- b. If the 99% confidence interval were to be no wider than ten dollars, how many patients should be surveyed?
- (3) A random sample of 50 men and 50 women aged 20 – 24 years found that the average amount of time spent grooming each day was 37.5 minutes for men and 49.3 minutes for women. The standard deviations of the samples were 6.3 and 5.1, respectively. Compute 95% confidence intervals for the two means.