

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.