Quiz # 4		Stat 213-01
NAME:	ID #:	Serial #:
1 The average number of acres burned by forest and range fires in a large Wyoming country is		

1. The average number of acres burned by forest and range fires in a large Wyoming country is 4,300 acres per year, with a standard deviation of 750 acres. The distribution of the number of acres burned is normal. Compute the probability that more than 5,200 acres will be burned in any year.

- 2. According to an article in USA Today the average patient cost per stay in American hospitals was \$8,166. Assume that this cost is exponentially distributed.
- a. Determine the probability that a randomly selected patient's stay in an American hospital will cost between \$8,000 and \$12,000.
- b. Find the median cost per stay in American hospitals.

3. One study on managers' satisfaction with management tools reveals that 60% of all managers use self-directed work teams as a management tool. Suppose 65 managers selected randomly in the Kingdom of Saudi Arabia are interviewed. What is the probability that more than 30 use self-directed work teams as a management tool?

4. Suppose that during any hour in a large department store, the average number of shoppers is 445, with a standard deviation of 18 shoppers. What is the probability that a random sample of 49 different shopping hours will yield a sample mean between 440 and 450 shoppers?

5. If the true proportion of voters who support Proposition A is  $\pi = 0.37$ , what is the probability that a sample of size 300 yields a sample proportion between 0.35 and 0.40? Also check the assumptions required.