Quiz 8

Please show all work.

(1) What is the probability that a set of four randomly chosen digits will contain exactly three 5’s?

(2) Suppose the weight of a pig at the county fair is a normal random variable, with mean 200 pounds and standard deviation 10 pounds. What is the probability that the average weight of four randomly chosen pigs will exceed 210 pounds? Do you need the Central Limit Theorem to make this calculation?

Prob = ____________

CLT: yes/no

(3) A survey of 100 teenage crocodiles revealed that the average amount of time spent per day lurking in muddy water was about 10 hours. Assume that the standard deviation is 5 hours. Give a 95% confidence interval for the mean time spent lurking.