A.P. Statistics
Assignment 6-8

Remember to show your thinking through your work.

1. Now what are the conditions for using the normal approximation for a sampling distribution of means?

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2. Describe in your own words the Central Limit Theorem.

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3. Describe your thinking from the interactive activity where you drew a parent population and then drew a sample to validate the Central Limit Theorem (http://www.ruf.rice.edu/%7Elane/stat_sim/sampling_dist/index.html).

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4. Describe the sampling distribution of x-bar for samples of size 20 drawn from a normal population with a mean of 50 and standard deviation of 4.

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5. The average American adult has completed an average of 11.25 years of education with a standard deviation of 1.75 years. A random sample of 75 adults is taken.

   a. What is the probability that the sample will have a mean more than 11.5?

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   b. What is the probability that the sample will have a mean between 11 and 12 years?

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