Name_____ Per._____

AP Statistics Chapter 11 Assignments: Simulations

Date	Lesson	Assignment
9/20	Unit II Test	A19: Chapter 11 Reading Guide
9/21	C11(1): Estimation using the Calc.	A20: 266(5, 6, 9,-14) & 36(29, 31) Note: for all simulations do 10 trials only
9/24	C11(2): Estimation using the table	A21: 266(7-8, 19-20, 22, 24-26) Note: for all simulations do 10 trials only
9/26	C11(3): Review and Activity	A22: Investigative Task – attached And, 123(1-7 odd)
9/27	Review (Including Units 1 & 2)	A23: 266(1, 3, 15-18, 21, 23) & 191(25, 27, 29)
9/28	Cumulative Test: Chapters 1-8, 11	A24: Chapters 11 & 12 Flashcards (due Mon) - reading questions optional

Comments:

Test Score

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Student Signature date

Parent Signature date

A22: Investigative Task – ESP

Your friend claims he "has ESP". Being properly skeptical, you decide to test his claim. Here is your plan. You will get ten volunteers to sign their names on identical cards, and seal the cards in identical envelopes. You will then shuffle the pile of envelopes, and hand them to your friend. Using his alleged powers of extrasensory perception, he will distribute the envelopes back to the volunteers, trying to match each person with the one containing the proper signature.

Of course, it will be quite stunning if, when the ten volunteers open the envelopes, they all find their own signatures. If that happens you will certainly believe he really does have ESP.
But that's unlikely. Chances are he'll match some people with their signatures and miss others. You need to know how well an ordinary non-ESP-endowed person might do just by chance. Then you can decide how many matches your friend needs to make to convince you that he does have some mystical insight.

Before actually conducting this test then, you need to simulate it. You may use either your calculator or the random number table to determine how many matches you would consider to be "statistically significant".

In the write-up for this activity: clearly explain your procedure, show the results of at least 20 trials, and state your conclusion. To receive full credit you need to show the following:

A successful simulation:

- simulates randomizing the order of the envelopes
- avoids giving any envelope out twice

In conducting the simulation:

- describes the method clearly
- shows the results of 20 trials, clearly labeled
- defines the correct response variable

The conclusion:

- establishes a reasonable decision rule
- justifies the rule
- does not confuse the model with the actual test to be conducted

Be sure to follow ALL the procedures for a simulation – as taught in class. Clearly label all steps. See me BEFORE turning this in if you need guidance.