AP Statistics Chapter 20 - 22 Review

ANSWERS ONLY *(for explanations, please come in for tutorials)*

Part I

1. 0.9048 *(look up your chapter 17 notes if you can't figure this one out)*
2. a) 1-proportion z-interval: (0.0428, 0.0692)
   b) If we took repeated random samples using this method, about 90% of the resulting confidence intervals would contain the true proportion of accidents that result in the hospitalization of the driver.
3. a) Type I Error:
   We decide that the new drug IS more effective than the current treatment, when in reality, it is NOT. A possible consequence is that the company continues spending (WASTING?) money on a treatment that is no more effective than the current treatment.
   Type II Error: ???

   b) 1-proportion z-test: z = 1.3861, p-value = 0.0829
   c) ???
   d) This would be a type II error.
   e) 0.568
   f) Increase the sample size, or raise the level of significance.

4. a) 2-proportion z-test: z = 0.8963, p-value = 0.3701
   b) ???

5. a) 2-proportion z-interval: (-0.2451, 0.0043)
   b) No. Since zero is contained in this interval, it is plausible that there is no difference of proportions...

6. a) 0.0414
   b) Either 0.0207 or 0.9793

Part II – Here are the problem types... to check formulas and/or hypotheses, come in to tutorials...

7. 2-proportion z-interval
8. 1-proportion z-test
9. Binomial probability
10. 2-proportion z-test
11. 1-proportion z-interval

12. B
13. A