

## AP Statistics Chapter 20 - 22 Review

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

### Part I

- 0.9048 (look up your chapter 17 notes if you can't figure this one out)
- 1-proportion z-interval: (0.0428, 0.0692)
  - 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.
- 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: ???
  - 1-proportion z-test:  $z = 1.3861$ ,  $p\text{-value} = 0.0829$
  - ???
  - This would be a type II error.
  - 0.568
  - Increase the sample size, or raise the level of significance.
- 2-proportion z-test:  $z = 0.8963$ ,  $p\text{-value} = 0.3701$
  - ???
- 2-proportion z-interval: (-0.2451, 0.0043)
  - No. Since zero is contained in this interval, it is plausible that there is no difference of proportions...
- 0.0414
  - Either 0.0207 or 0.9793
- ???
  - Yes
  - No
  - ???

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

- 2-proportion z-interval
- 1-proportion z-test
- 2-proportion z-test
- 1-proportion z-interval
  
- B
- A