

# Monday, March 4, 2019

- Warm-up
  - An Associated Press article on potential violent behavior reported the results of a survey of 750 workers who were employed full time. Of those surveyed, 125 indicated that they were so angered by a coworker during the past year that they felt like hitting the coworker (but didn't). Assuming that is it reasonable to regard this sample as representative of the population of full-time workers, use this information to construct and interpret a 90% confidence interval estimate of  $p$ , the proportion of all full-time workers so angered in the last year that they wanted to hit a coworker?

- Check Homework
- Discussion of Errors
- Review for Test



# Objectives

- Content Objective: I will review content so that I am successful on the unit test.
- Social Objective: I will participate in class discussions without distracting others.
- Language Objective: I will write clear notes to study from so I am successful on the test.

# Warm-up

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representative sample - stated  
750 < 10% of all workers  
125 ( $np$ )  $\geq 10$   
625 ( $ng$ )  $\geq 10$  } sample size  
1 proportion  $z$ -interval

$$0.166 \pm 0.022$$
$$(0.144, 0.188)$$

I am  
90% confident  
that the true prop.  
of people who wanted  
to hit a coworker is  
 $16.6\% \pm 2.2\%$ .



# Extend warm-up

An Associated Press article on potential violent behavior reported the results of a survey of 750 workers who were employed full time. Of those surveyed, 125 indicated that they were so angered by a coworker during the past year that they felt like hitting the coworker (but didn't). Assuming that is it reasonable to regard this sample as representative of the population of full-time workers, use this information to test if this study shows that this study conflicts the other studies that show that 42% of employee time is spent engaging in or trying to resolve conflict.

(14.4%, 18.8%)



# One more extension

An Associated Press article on potential violent behavior reported the results of a survey of 750 workers who were employed full time. Of those surveyed, 125 indicated that they were so angered by a coworker during the past year that they felt like hitting the coworker (but didn't). Assuming that it is reasonable to regard this sample as representative of the population of full-time workers, use this information to test if this study shows that this study conflicts the other studies that show that 42% of employee time is spent engaging in or trying to resolve conflict.

ART is my BFF  
 $\alpha$  reject  
raise  
raise

I think

$$H_0: p = 0.42 \quad X$$

$$H_A: p < 0.42$$

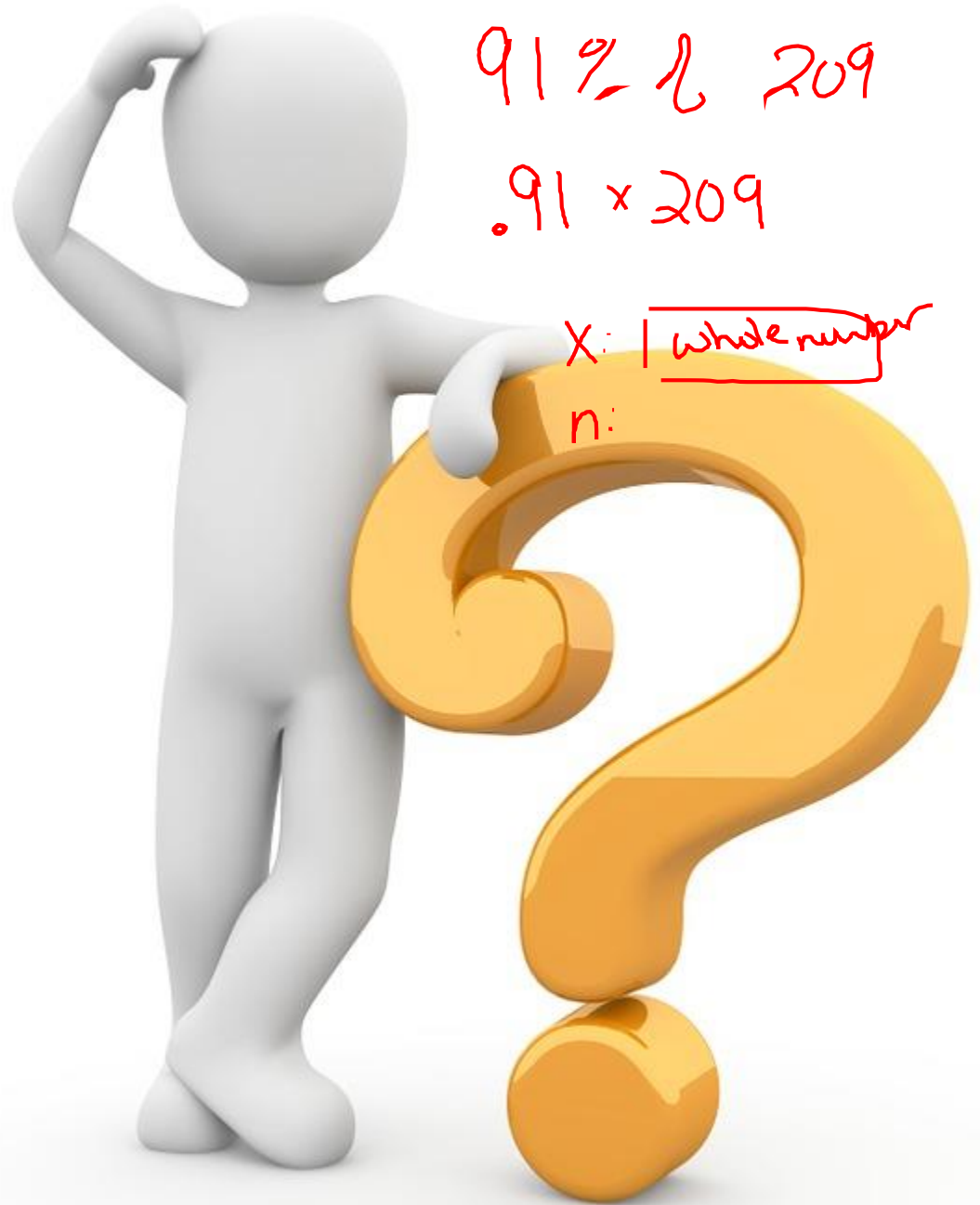
p-value 0.001 (0.1%)

- What would make a Type I error?
- What would make a Type II error?
- Which is more dangerous? Why?



# MC Practice

P-value



# Due Tomorrow

**ALL HOMEWORK FROM  
THE UNIT (12 assignments)**