Economics 421 Pre-Quiz

Name (first and last):

Instructions Complete this short quiz to the best of your ability. Points will be given for effort. Extra-credit points are available for higher scores. You may leave class after you complete the quiz.

Important Don't worry if you cannot give a perfect answer. Give your best effort. No phones, calculators, or outside materials. *Any* cheating could earn you a zero in this class.

01. Define the term "variance."

02. For the equation $\mathbf{Crime}_i = \alpha + \beta \mathbf{Police}_i + u_i$, if the number of police officers (given by $\mathbf{Police}$) increases by 1 unit, how much do we expect crime (given by $\mathbf{Crime}$) to change?

03. Imagine we are testing the null hypothesis H_o $\mu = 3$ against the alternative hypothesis H_a $\mu \neq 3$. If the p-value is 0.001, what should we conclude?

04. For the estimated regression model $\hat{y}_i = 1.3 + 5.4x_i$, interpret the intercept.

05. Define the concept of the *median*.

06. What does the notation $E[X]$ mean?

07. For $\log(Q_i) = 12 + 0.8\log(P_i) + u_i$, interpret the slope. *Note: P denotes price, and Q refers to quantity.*

08. Define the concept of a *mean*.

09. Define the term "standard error."

10. Answer each of the next three questions as honestly as possible. Use only 1–2 sentences per answer.

    A. What do you hope to get out off this class?

    B. Why are you an economics major (or whichever major you've chosen)?

    C. Why do you want a college degree?