Pre-test

Prliminaries

1. What was your last math class?
2. If you took 311 or 415, who was your instructor?
3. Have you taken econometrics, EC469 at PSU? Who was your instructor?

Theory of the individual (Graphical)

Show two sets of indifference curves, one where the two goods are very close substitutes and the other where the goods are not very close substitutes.

Using a reasonable set of indifference curves and budget constraint show the utility maximizing bundle.

With a similar budget constraint and indifference curves show what happens to the utility maximizing bundle when the price of the good on the horizontal axis increases.

With a similar budget constraint and indifference curves show what happens to the utility maximizing bundle when the price of the good on the horizontal axis increases after you purchases Z units.

Theory of the firm (Graphical)

Show a set of cost curves, i.e., average cost, marginal cost, and average variable cost for some firm.

With the same cost curves show demand and marginal revenue for a firm with market power.

Show profit maximizing output, profit, total cost and total revenue for this firm.

Theory of the firm (Math)

The firm has a cost function, $Cost = 10 + 3q$, and faces a demand function of $p = 30 - 2q$. What is profit maximizing output?

Theory of the individual (Calc)

What are the demands for x_1 and x_2

$$\begin{aligned} \max_{x_1,x_2} \quad & 2ln(x_1) + ln(x_2) \\ \text{s.t.} \quad & x_1 + px_2 \leq I \end{aligned}$$

Econometrics

Interpret the following values from this regression output. The regression has the following form, $Quantity = \alpha + \beta Price + \epsilon$.

- The parameter associated with "Price".
- The value in parentheses under the "Price" parameter.
- R^2
- F-Statistic

Table 1:

	Dependent variable:
	Quantity
Price	-1.978^{***}
	(0.023)
Constant	99.322^{***}
	(0.548)
Observations	20
R^2	0.998
Adjusted R^2	0.997
Residual Std. Error	1.121 (df = 18)
F Statistic	$7{,}359.770^{***}$ (df = 1; 18)
Note:	*p<0.1; **p<0.05; ***p<0.01