

**Homework 2**  
**AGEC 3333**  
**Assigned: 1/20/09**  
**Due: 1/22/09**

Name \_\_\_\_\_ answer key \_\_\_\_\_

Part A) From the 1/20 Lecture

- (1) [1 point] The cost of producing one additional unit is referred to as marginal cost.
- (2) [1 point] \_\_\_\_\_ cost will change as production is varied, where \_\_\_\_\_ cost is the same regardless of how much is produced. *Circle all that are applicable.*

- (a) marginal, fixed
- (b) variable, fixed
- (c) marginal, variable
- (d) fixed, variable
- (e) fixed, marginal

- (3) [1 point] Total profits equal producer surplus minus fixed cost.
- (4) [1 point] If profits equal 500 and fixed costs equal 50, what is producer surplus? 500 + 50 = 550.
- (5) [1 point] As fixed costs rise, the optimal quantity to produce and sell will
- (a) rise
- (b) neither rise nor fall
- (c) fall
- (6) [1 point] Suppose the supply curve formula is:  $MC = 20 + 10(Q)$ . If price equals \$29, how many units will be produced? *Assume fractions of units can be produced.*

$$29 = 20 + 10(Q^*)$$
$$Q^* = (29-20)/10 = 9/10$$

- (7) [1 point] Following from the previous question, if price equals \$29, what is producer surplus? *Assume fractions of units can be produced.*

$$PS = (1/2)(29-20)(9/10) = 4.05$$

Part B) Learning About Soybeans: go to [http://72.32.142.180/soy\\_facts.htm](http://72.32.142.180/soy_facts.htm) to answer the following questions.

(1) [1 point] About 85 percent of the world's soybeans are used to produce \_\_soybean meal\_\_\_\_ and \_\_soybean oil\_\_.

(2) [1 point] Soybean meal is used primarily for what?

Feeding livestock

(3) [1 point] Soybean oil is used primarily for what?

Edible oil

(4) [1 point] What is so interesting about the protein content of soybeans?

Soy is one of the few plants that provides a complete protein as it contains all eight amino acids essential for human health.

(5) [1 point] When did the U.S. really begin producing soybeans?

1940-1955

(6) [1 point] What are the two traditional food products made from soybeans, besides just eating the bean?

Soy milk and tofu

Use Wikipedia to answer these questions.

(7) [1 point] The soybean is a species of \_\_legume\_\_ native to \_\_East Asia\_\_.

(8) [1 point] Legume plants are noteworthy for their ability to fix \_\_nitrogen\_\_\_\_...The ability to form this symbiosis reduces \_\_fertilizer\_\_ costs .... And allows legumes to be used in a crop rotation to replenish soil that has been depleted of \_\_nitrogen\_\_.

**Part C) Reading Assignment: pages 1-4 of *Agricultural Marketing and Price Analysis***

1. Each execution in the U.S. deters \_\_eight\_\_ murders.
2. One of the most popular girl's names of 2015 will be \_Clementine\_\_.
3. In a few complete, clear, and logical sentences, why did the buffalo almost become extinct but the cow did not?

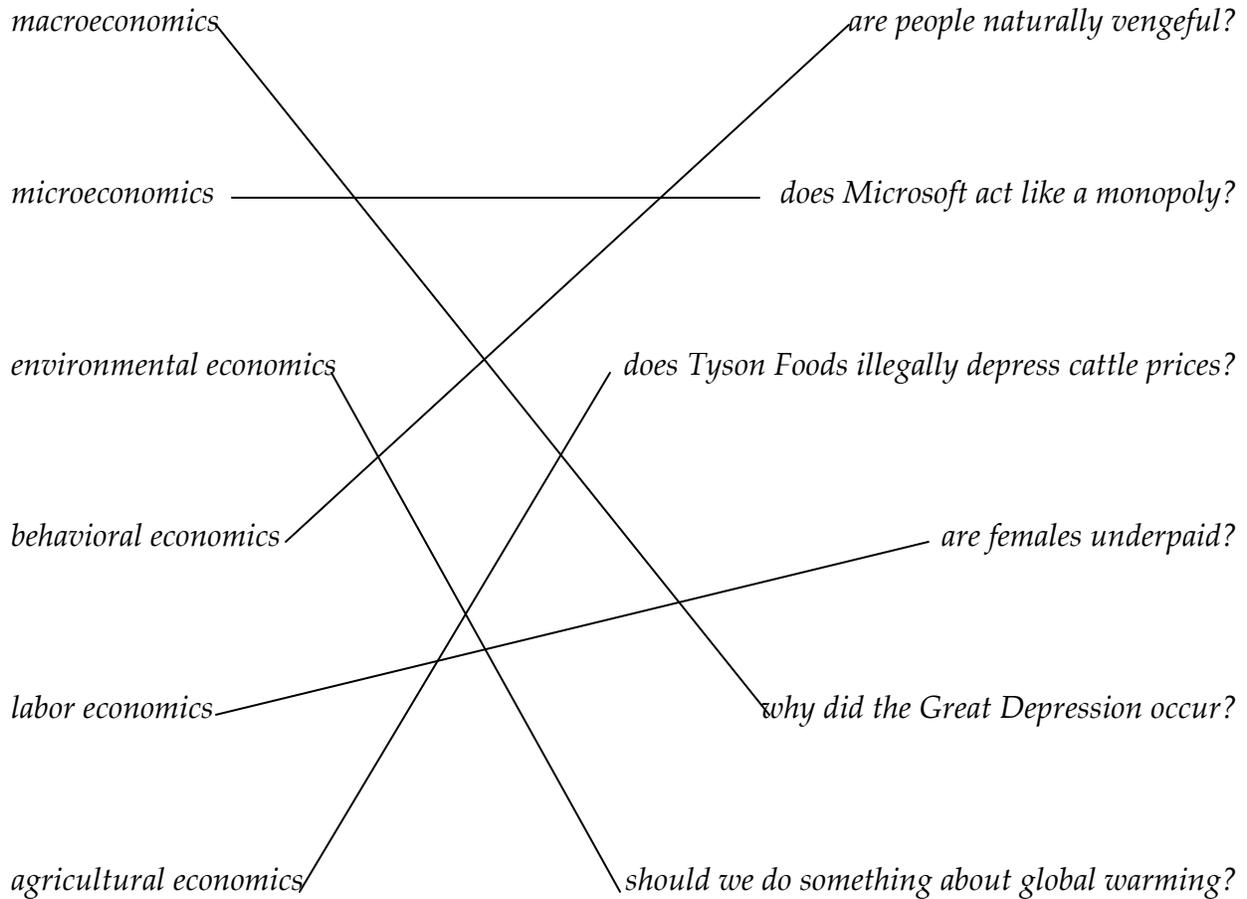
The cow was private property while the buffalo was not. The owner of a cow could forego killing the cow, allowing it to breed and produce offspring, because the owner of the cow would profit from the offspring. Thus, some cows are always set aside for breeding, and the cow population has never suffered.

A hunter would not allow a buffalo to live in hopes it would produce future offspring, because some other hunter would likely come along and kill the buffalo. Either you kill the buffalo now, or someone else would. There was no incentive for any one person to let a buffalo lived, so they were almost hunted to extinction.

4. The elephant was almost hunted to extinction in Zimbabwe. What did Zimbabwe do to save the elephant?

The elephant was deemed to be the private property of Zimbabwe citizens. One had to purchase a permit from these citizens to kill an elephant. Thus, these citizens had the incentive to allow some elephants to live and breed, so that they could profit off its offspring.

5. On the bottom left are branches of economics and on the bottom right are economic issues. Match the branch of economics with the issue it pertains to by drawing a line between the two.



6. If you were to become an economist, what type of economist would you become, and why?