AGEC

1114

Fall Semester, 2009
Final Exam

Name _____

For the multiple choice questions, the answers you write on the scantron will be considered the official answers. Make absolutely sure to write your name on this test booklet and the scantron sheet.

There are different versions of the test, each of them separated by color. On your scantron, at the top, please write the color of your test booklet. This is a very important detail you do not want to get incorrect.

When you are done with your exam, be sure to turn it in in the appropriate pile. The piles are separated by color.

Each question is worth an identical number of points.

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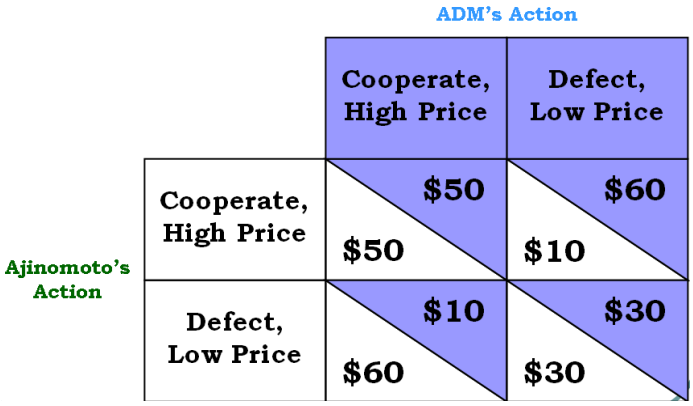
Game Theory and Strategic Price Setting

The graph below depicts a one-shot price setting game. I repeat, assume that this game is played only once.



(1) In the one-shot price setting game, the dominant strategy for ADM and Ajinomoto is to do what?

(a) ADM: high price
Ajinomoto: high price

(b) ADM: high price
Ajinomoto: low price

(c) ADM: low price
Ajinomoto: high price

(d) ADM: low price
Ajinomoto: low price

(2) In the one-shot price setting game, what is the Nash Equilibrium?

(a) ADM: high price
Ajinomoto: high price

(b) ADM: high price
Ajinomoto: low price

(c) ADM: low price
Ajinomoto: high price

(d) ADM: low price
Ajinomoto: low price

(3) In the one-shot price setting game, if the two firms could legally collude and create enforceable legal contracts dictating each firm's price, what price would each business charge.

(a) ADM: high price
Ajinomoto: high price

(b) ADM: high price
Ajinomoto: low price

(c) ADM: low price
Ajinomoto: high price

(d) ADM: low price
Ajinomoto: low price

(4) A dominant strategy is defined as a strategy that

(a) is a superior strategy regardless of the opponent's strategy

(b) is a superior strategy given the opponent's strategy

(c) is a superior strategy when enforceable, legal contracts are allowed

(d) is a superior strategy when tacit collusion occurs

(5) In strategic games, a _____ Equilibrium does not always exist, but a _____ Equilibrium usually does exist.

(a) Blank 1: Hayek
Blank 2: Friedman

(b) Blank 1: Dominant Strategy
Blank 2: Nash

(c) Blank 1: Marshall
Blank 2: Dominant

(d) Blank 1: Prequel
Blank 2: Sequel

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Both Ram and Rod are brewers, the only two brewers of traditional American beer in the region. The alcohol content is one attribute, among many, that influences the desirability of beer. American beer tastes best when at a 5% alcohol content. However, one could brew a 3.2% beer, a lower quality beer, which tastes like watered-down beer. Lower quality beer is cheaper to produce. In fact, their aggregate profits are highest if both produce a low quality beer. When both firms produce low-quality beer, students will still purchase roughly the same amount, and will pay roughly the same price, but it costs them less to brew. But if Ram produces 3.2% beer, Rod can easily brew a higher quality beer, charge slightly more, and steal most of Ram's customers, and vice-versa. Assume this "game" is only played once.

Beer Quality Game (profits in billions of dollars)

		Rod: High Quality Beer (5%)	Rod: Low Quality Beer (3.2%)
Ram	High Quality Beer (5%)	$10 / $10	$5 / $20
Ram	Low Quality Beer (3.2%)	$20 / $5	$15 / $15

(6) What is the dominant strategy equilibrium in the *Beer Quality Game?*

(a) Ram: high quality
Rodd: high quality

(b) Ram: high quality
Rodd: low quality

(c) Ram: low quality
Rodd: high quality

(d) Ram: low quality
Rodd: low quality

(e) there are no dominant strategies, so there is no dominant strategy equilibrium

(7) Suppose the Oklahoma legislature is considering a bill that would outlaw the sale of all beer with an alcohol content higher than 3.2%. How would Ram and Rod react to this proposed bill?

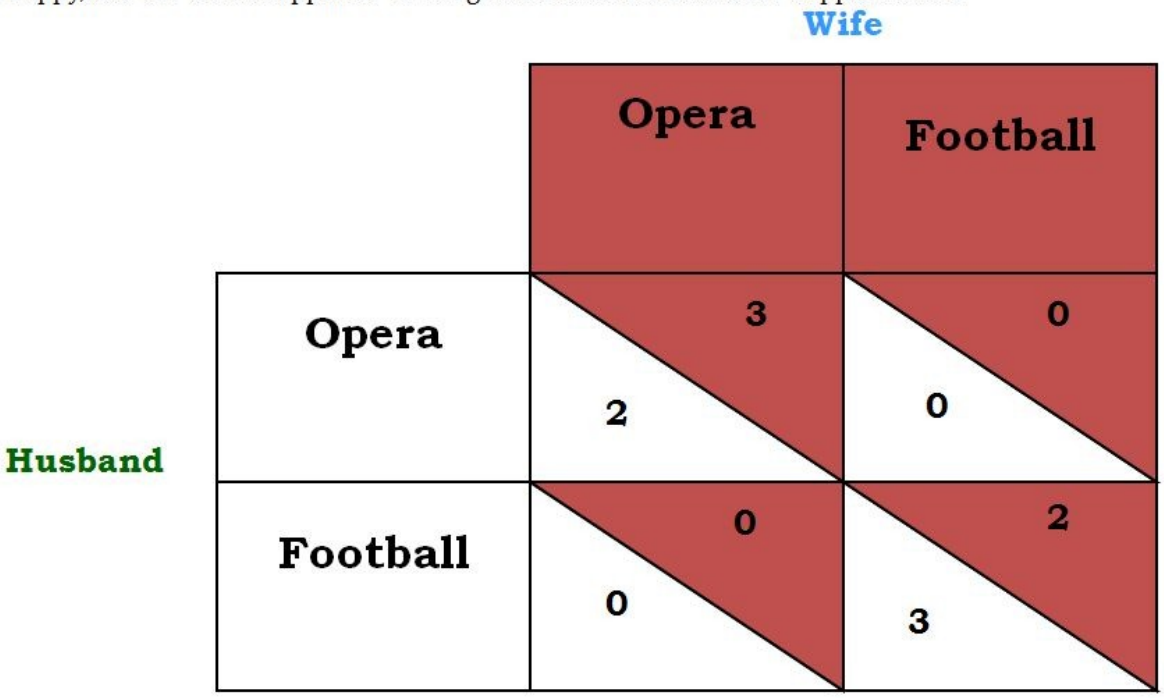
(a) they would both support the bill

(b) they would both oppose the bill

(c) whether they would oppose or support the bill depends on the particular strategies Ram and Rod choose.

Battle of the Sexes

Imagine a couple that agreed to meet this evening, but cannot recall if they will be attending the opera or a football match. The husband would most of all like to go to the football game. The wife would like to go to the opera. Both would prefer to go to the same place rather than different ones, because they enjoy the company of each other more than they enjoy the football match/opera. If they cannot communicate, where should they go? The outcome of the game is a simple number denoting happiness. For example, if the wife goes to the opera and the husband goes to football, they each receive an outcome of zero, meaning they are not happy. However, if they both go to the opera they are happy, but the wife's happiness of 3 is greater than the husband's happiness of 2.



(8) What is the Dominant Strategy Equilibrium in the *Battle of the Sexes Game?*

(a) Wife: Opera
Husband: Opera

(b) Wife: Football
Husband: Football

(c) Wife: Football
Husband: Opera

(d) Wife: Opera
Husband: Football

(e) there are no dominant strategies, thus no Dominant Strategy Equilibrium

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Below is a game called *Matching Pennies*, where each person decides whether they are going to reveal a coin with heads up or tails up. They must both choose heads or tails in secret, and then reveal their choices simultaneously. If the coins match, Stewart pays Colbert $1, and if they are different Colbert pays Stewart $1.

		Stewart: Head	Stewart: Tail
Colbert	Head	-1 / 1	1 / -1
	Tail	1 / -1	-1 / 1

(9) What is the Dominant Strategy Equilibrium in the *Matching Pennies* game?

(a)Colbert: head
Stewart: head

(b)Colbert: tail
Stewart: head

(c)Colbert: head
Stewart: tail

(d)Colbert: tail
Stewart: tail

(e) there are no dominant strategies, thus no Dominant Strategy Equilibrium

(10) What is the Nash Equilibrium in the *Matching Pennies* game?

(a)Colbert: head
Stewart: head

(b)Colbert: tail
Stewart: head

(c)Colbert: head
Stewart: tail

(d)Colbert: tail
Stewart: tail

(e) there is no Nash Equilibrium

The following is a series of statements regarding an industry, with particular attention towards the ability of the industry to engage in tacit collusion. Your job is to determine whether each statement is true or false.

(11) **True/False:** About three grocery stores service a town, and the owners and managers of those three grocery stores change frequently. **True/False:** This facilitates tacit collusion.

(a) TRUE (b) FALSE

(12) **True/False:** About three grocery stores service a town, and the owners and managers of those three grocery stores have extensive experience in tacit collusion. **True/False:** This facilitates tacit collusion.

(a) TRUE (b) FALSE

(13) **True/False:** About three grocery stores service a town. The owners regularly communicate information about prices, to consumers and each other, indirectly through newspaper advertisements. **True/False:** This facilitates tacit collusion.

(a) TRUE (b) FALSE

(14) **True/False:** About three grocery stores service a town. Two grocery stores are similar in their costs, but one grocery store has substantially lower costs. **True/False:** This facilitates tacit collusion.

(a) TRUE (b) FALSE

(15) This describes a practice where a business initially charges high prices, but then lowers the price substantially if its competitors charge a low price.

(a) trigger pricing (c) tacit collusion (e) Folk

(b) low-price guarantee (d) tit-for-tat

(16) This describes a practice where a business initially charges high prices, and then publicly states (perhaps through newspaper advertisements) that it will match any competitor's price.

(a) trigger pricing (c) tacit collusion (e) Folk

(b) low-price guarantee (d) tit-for-tat

(17) This is an unspoken but understood agreement between firms to charge high prices and not try to undercut each other on price.

(a) trigger pricing (c) tacit collusion (e) Folk

(b) low-price guarantee (d) tit-for-tat

(18) This is a theorem showing that, if the price-setting game is placed an infinite number of times and players are rational, they will develop cooperate strategies whereby they both charge high prices.

(a) trigger pricing (c) tacit collusion (e) Folk

(b) low-price guarantee (d) tit-for-tat

(19) In 1980, Robert Axelrod (a political scientist) held a contest regarding differing strategies in the repeating-price-setting game. The _____ strategy won the contest, and was deemed to be the most profitable strategy.

(a) trigger pricing (c) tacit collusion (e) Folk

(b) low-price guarantees (d) tit-for-tat

Market Structures and Market Power

(20) This describes a market with a few sellers and many buyers of identical products with no close substitutes.

(a) monopsony (c) oligopoly (e) perfect competition

(b) monopoly (d) oligopsony

(21) This describes a market with a single buyer and many sellers of identical products with no close substitutes.

(a) monopsony (c) oligopoly (e) perfect competition

(b) monopoly (d) oligopsony

(22) This describes a market with many buyers and many sellers of identical products with no close substitutes.

(a) monopsony (c) oligopoly (e) perfect competition

(b) monopoly (d) oligopsony

(23) A _____ is a market structure that will most likely result in a price higher than the perfectly competitive price (everything else being equal).

(a) monopsony (c) oligopsony (e) a,c

(b) monopoly (d) a,b

(24) A _____ is a market structure that will most likely result in a price lower than the perfectly competitive price (everything else being equal).

(a) monopsony (c) oligopsony (e) a,c

(b) monopoly (d) a,b

(25) Consider the live-cattle market. Assume that, historically, the live-cattle market could be described as perfectly competitive. However, many of the buyers of live-cattle are wishing to merge with one another. They believe that by merging and becoming a bigger firm, they can share certain fixed costs and reduce their average cost of production. After this merge, because it is cheaper for them to process live-cattle into beef, they would place a higher value on live cattle. **If the mergers are approved and take place, what will happen to the price of live-cattle?**

(a) the price would rise due to the greater market power of the buyers

(b) the price would fall due to the greater market power of the buyers

(c) the price would rise because these new firms place a higher value on live-cattle

(d) the price change is ambiguous: greater market power by buyers tends to depress prices, while the higher value of live-cattle tends to raise prices

(e) a,c

(26) We have learned in class that genetically modified seeds sold by Monsanto are patented by Monsanto, making Monsant o the single seller of genetically modified seed, which we believe has no close substitute. Most likely, what would have happened in the last thirty years if these patents did not exist?

(a) farmers would pay a much lower price for genetically modified seed

(b) the genetically modified seed probably would not have been invented

(c) farmers would pay a higher price for genetically modified seed

(d) mergers between seed companies would form, allowing market power to perform the role normally played by patents

(27) Producers of live-cattle (cattle ready for harvest) often claim that beef processors obtain market power by placing a proportion of cattle under contract months before harvest, where the price of those cattle is set equal to the subsequent price of the live-cattle not under contract. This practice is conventionally referred to as _____ in the beef industry, and in the courtroom.

(a) contract cows
(b) captive supplies
(c) reserved culls
(d) retained culls
(e) maintained culls

(28) Market power, whether it be market power by a buyer or a seller, can be acquired by (1) political influence, (2) bullying practices, (3) pricing all competitors out of the market or the merging of firms, and (4) _____.

(a) patents
(b) establishing non-profit cooperatives to out-perform for-profit firms
(c) failing to provide consumers with adequate information
(d) expensive television commercials
(e) any form of expensive marketing, advertising, or product promotion.

Markets and Market Failure

(29) **True/False:** Every market transaction makes the buyer and seller better off, and in the absence of externalities, no third-party is impacted.

(a) TRUE (b) FALSE

(30) **True/False:** Whenever an externality is present, market failure is said to occur.

(a) TRUE (b) FALSE

(31) **True/False:** Whenever market failure occurs, governments will always improve social welfare through the use of taxes or subsidizes.

(a) TRUE (b) FALSE

(32) The production of energy through the use of coal creates air pollution, harming all who breathe the air. This pollution is referred to as a(n) _____, and one way of addressing this problem is by _____ energy produced from coal.

(a) negative externality, subsidizing

(c) negative externality, taxing

(b) positive externality, taxing

(d) positive externality, subsidizing

(33) Fire-proofing a home benefits the sellers of fire-proofing materials and the buyers of the materials, as it decreases the chance of fire. Fire-proofing also benefits neighbors, as it reduces the likelihood that a fire started in one's home will spread to adjacent homes. This benefit to 3rd parties of the transaction is referred to as a(n) _____, and can be addressed by _____ fire-proofing products.

(a) negative externality, subsidizing

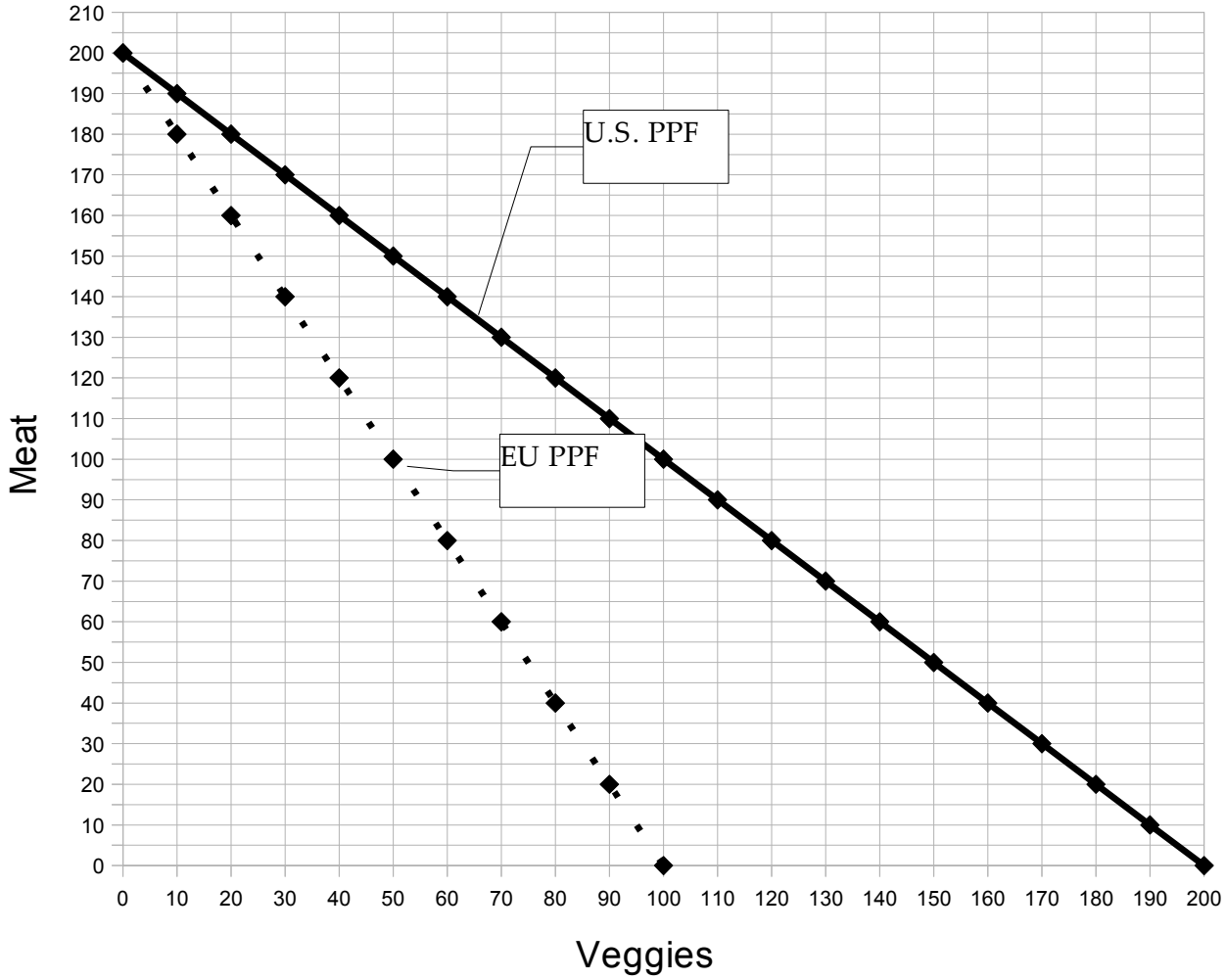
(c) negative externality, taxing

(b) positive externality, taxing

(d) positive externality, subsidizing

Gains From Trade and Trade Balances

Use the Production Possibilities Frontiers for the U.S. and the European Union below to answer the following question.



(34) Which of the following formulas are the correct PPF's for the U.S. and the EU.

(a) US: Meat = 200 - 1(Veggies)
EU: Meat = 200 - (1/2)(Veggies)

(b) US: Meat = 200 - 1(Veggies)
EU: Meat = 200 - 2(Veggies)

(c) US: Meat = 200 - 2(Veggies)
EU: Meat = 200 - 1(Veggies)

(d) US: Meat = 200 - (1/2)(Veggies)
EU: Meat = 100 - 2(Veggies)

(35) Using the PPF curves below, what is the opportunity cost of meat production for the U.S.?
US: Meat = 100 – (1/2)(Veggies)
China: Meat = 500 – 2(Veggies)

(a) 2 Veggies
(b) ½ Veggies
(c) 100 Veggies
(d) 100 - ½ = 99 Meat

Use the following information to answer Questions 36-37. Suppose that, initially, the US and EU do not engage in trade. In autarky, the U.S. produces and consumes 300 Meat and 200 Veggies, while the EU produces and consumes 150 Meat and 200 Veggies. Once they engage in trade, the US produces 500 Meat and no Veggies, while the EU products no Meat and 500 Veggies.

(36) **True or False:** If the U.S. and EU traded 200 Meat for 250 Veggies, both countries can be made unambiguously better off.

(a) TRUE (b) FALSE

(37) **True or False:** If the U.S. and EU traded 100 Meat for 200 Veggies, both countries can be made unambiguously better off.

(a) TRUE (b) FALSE

(38) If Country A can produce Meat at a lower opportunity cost than Country B, then Country A is said to have a _____ advantage in the production of meat.

(a) strategic
(b) opportunate
(c) absolute
(d) comparative

(39) If Country A can more units of Meat than Country B, then Country A is said to have a _____ advantage in the production of meat.

(a) strategic
(b) opportunate
(c) absolute
(d) comparative

(40) If the U.S. runs a negative trade balance (also known as a trade deficit) with the world (as the U.S. currently does), this implies that (assume that "exports" and "imports" do not count purchases of investments)...

(a) the U.S. exports more than it imports

(b) the U.S. imports more than it exports

(c) the U.S. borrows more money from the world than it lends to the world

(d) b,c

(e) a,c

(41) The U.S. currently runs a negative trade balance, also known as a trade deficit. Why?

(a) because foreigners love to invest in the U.S. by purchasing our stocks and bonds

(b) because the exchange rate between the dollar and other currencies does not equalize imports and exports

(c) because of the foreign aid the U.S. sends other countries

(d) b,c

(e) a,c

(42) **True/False:** A country that exports more than it imports accumulates more wealth, relative to other countries. Thus, a country should always encourage exports and discourage imports.

(a) TRUE (b) FALSE

(43) **True/False:** Every time you spend money on an imported good, that dollar you spend will come back to U.S. businesses in the form of a U.S. export.

(a) TRUE (b) FALSE

(44) **True/False:** Suppose all U.S. citizens decide to purchase only American-made products. Though U.S. consumers are hurt in that they can no longer enjoy imported products, U.S. firms will benefit by additional sales.

(a) TRUE (b) FALSE

(45) **True/False:** The U.S. should try to maintain a positive trade balance with the rest of the world, to prevent losing U.S. jobs to foreign countries.

(a) TRUE (b) FALSE

Global Warming

(46) **True/False:** Venus is hotter than Mercury, even though Mercury is closer to the sun, because Venus has an atmosphere of greenhouse gases while Mercury has almost no atmosphere.

(a) TRUE (b) FALSE

(47) **True/False:** When economists perform cost-benefit analyses of U.S. policies to fight global warming, they tend to measure high costs, but high benefits as well.

(a) TRUE (b) FALSE

(48) **True/False:** In considering the reduction of greenhouse gas emissions, we should bear in mind the opportunity cost. Which of the following represents an opportunity costs of reducing greenhouse gas emissions?

(a) money spent reducing emissions could be spent on alternative programs to benefit society, such as fighting malaria in developing countries

(b) future generations will be poorer than ours, and failing to mitigate global warming will make them even poorer

(c) instead of spending money now to reduce temperatures for future generations, we could invest that money instead and give future generations that money to compensate them for the temperature increase.

(d) b,c

(e) a,c

Famous Economists

(49) **True/False:** Adam Smith, the 18th Century moral philosopher, gave birth to economics with his book *Wealth of Nations.*

(a) TRUE (b) FALSE

(50) **True/False:** Adam Smith was the first philosopher to contend that self-interest, largely through the profit motive, and the invisible hand of the market leads to desirable social outcomes.

(a) TRUE (b) FALSE

(51) **True/False:** Alfred Marshall developed a theory of how government spending can cure economic recessions, and for this reason is adored by modern liberals.

(a) TRUE (b) FALSE

(52) **True/False:** John Maynard Keynes is loved by conservatives because his book, *The Road to Serfdom*, suggests modern-day liberalism can lead to fascism, and stressed the importance of personal freedom and personal responsibility.

(a) TRUE (b) FALSE

(53) **True/False:** Milton Friedman developed monetary economics, and achieved notoriety for his book *Capitalism and Freedom*.

(a) TRUE (b) FALSE

2007 – Present Financial Crisis

(54) The 2007-present financial crisis involved (a) bad bets (b) excessive leverage (c) domino effects, and (d) _____.

(a) borrowing too much money

(b) 21st Century bank runs

(c) not enough assets to cover the losses resulting from bad bets

(d) impacts bad banks had on good banks when they were forced to sell assets at low, low prices

(55) A major distinction between a fiscal stimulus, say, by government increasing its expenditures, and the *Federal Reserve* printing money to encourage economic activity, is ...

(a) a stimulus helps ordinary Americans while the *Federal Reserve* only helps foreigners who purchase U.S. exports

(b) the *Federal Reserve* answers only to the House of Representatives, while the fiscal stimulus must be approved by the House of Representatives AND the Senate

(c) Congress is forced to raise taxes in the same period the stimulus is implemented to pay for the stimulus, while the *Federal Reserve* does not

(d) each dollar spent in the stimulus had to be taken out of the economy first, unlike newly printed money by the *Federal Reserve*.

Feedback on your partner in the labs: **If your had a bad partner, such as a partner who frequently misses labs or makes you do most all of the work, please provide comments on this page. Please be specific.**