

# Chapter 09 Testbank

1. Game theory provides tools that are used to model
  - A. how perfectly competitive firms behave.
  - B. cost functions faced by firms.
  - C. consumer demand.
  - D. interdependence.
  
2. The three elements of a game are
  - A. the firm, the consumers and the profit
  - B. the players, the strategies and the payoffs
  - C. the model, the graph and the costs
  - D. the costs, the revenue and the profit
  
3. Game theory is not useful in understanding perfect competition because
  - A. by assumption, the firms are so small as to be unable to influence price and thus are not interdependent.
  - B. perfectly competitive firms are honest.
  - C. the players can't be identified.
  - D. the payoffs to their choices are unknown.

4. Which of the following situations does not involve game theory?

- A. Buying a pair of pants at the Gap.
- B. The government deciding to spend more on defense.
- C. Intel debating whether to lower the price on its microprocessors.
- D. A student considering cheating on this exam.

5. A payoff matrix is used to show

- A. the payoff to being a monopolist relative to a competitive firm.
- B. the demand curve faced by two competing firms.
- C. each player's payoffs in each possible combination of strategies.
- D. the sequence of strategies played in a game over time.

		Khalid	
		A	B
Rami	C	D	E
	F	G	H

6. Refer to the figure above. In the payoff matrix shown, which cells would show Rami's possible strategies?

- A. C and F
- B. A and B
- C. D, E, G and H
- D. D and G

7. Refer to the figure above. In the payoff matrix shown, Khalid may choose

- A. from among D, E, G and H.
- B. D only if Rami has chosen C first.
- C. G only if Rami has also chosen G.
- D. between A and B.

8. Refer to the figure above. In the payoff matrix show, the letter D denotes

- A. Rami's payoff from choosing D.
- B. Khalid' payoff from choosing D.
- C. each player's payoff if they both choose D.
- D. each player's payoff if Khalid chooses A at the same time Rami chooses C.

9. Refer to the figure above. If Khalid chooses B, the payoffs will be

- A. E
- B. H
- C. either E or H
- D. B

10. Refer to the figure above. A dominant strategy occurs when

- A. one player has a strategy that yields the highest payoff regardless of the other player's choice.
- B. both players have a strategy that yields the highest payoff independent of the other's choice.
- C. both players make the same choice.
- D. the payoff is the maximum possible combination of payoffs in the game.

		Player B	
		LEFT	RIGHT
Player A	UP	5 for A 30 for B	10 for A 12 for B
	DOWN	-2 for A 10 for B	8 for A 15 for B

11. Refer to the figure above. In this game, how many dominant strategies does Player A have?

- A. 0
- B. 1
- C. 2
- D. 4

12. Refer to the figure above. In this game, how many dominant strategies does Player B have?

- A. 0
- B. 1
- C. 2
- D. 4

13. Refer to the figure above. In this game, the dominated strategy for Player A

- A. is to play up.
- B. is to cooperate with Player B.
- C. is to play down.
- D. will depend on Player B's move.

14. Refer to the figure above. How many equilibria are there?

- A. 0
- B. 1
- C. 2
- D. 3

15. Refer to the figure above. Player B can infer that Player A will

- A. always choose the Down strategy.
- B. always choose the Up strategy.
- C. choose Down when B chooses Left and choose Up when B chooses Right.
- D. choose Up when B chooses Left and Down when B chooses Right.

16. Refer to the figure above. Player A can infer that Player B will

- A. always choose the Left strategy.
- B. always choose the Right strategy.
- C. choose Left when A chooses Up and choose Right when A chooses Down.
- D. Player A cannot infer anything about what Player B will do given this matrix.

Jalal is the owner of the 24-7 Mini Mart, Salah is the owner of the 24-365 Mini Mart and together they are the only gas stations in town. At the current price of \$3 per gallon both receive total revenues of \$1,000. Jalal is considering cutting his price to \$2.90, which would increase his total revenue to \$1,350 if Salah continues to charge \$3. If Salah's price remains \$3 after Jalal cuts his price, Salah will collect \$500 in revenues. If Salah cuts his price to \$2.90, his total revenues would also rise to \$1,350 if Jalal continues to charge \$3. Jalal will collect \$500 in revenues if he keeps his price at \$3 while Salah lowers his to \$2.90. Jalal and Salah will receive \$900 each in total revenue if they both lower their price to \$2.90. You may find it easier to answer the following questions if you fill in the payoff matrix below.

		Jalal	
		Cut Price	Keep Old Pric
Salah	Cut Price		
	Keep Old Price		

17. To Jalal, leaving his price at \$3 is a

- A. revenue maximizing strategy.
- B. dominant strategy.
- C. dominated strategy.
- D. profit maximization strategy.

18. To Salah, cutting his price to \$2.90 is a

- A. revenue maximizing strategy.
- B. dominant strategy.
- C. dominated strategy.
- D. profit maximizing strategy.

19. The clear outcome of this game is that

- A. Jalal will cut his price and Salah won't.
- B. both will cut price to \$2.90.
- C. Salah will cut his price and Jalal won't.
- D. neither Jalal nor Salah will cut their price.

20. To both Jalal and Salah, \_\_\_\_\_ is a \_\_\_\_\_.

- A. cutting price to \$2.90; disequilibrium.
- B. leaving price at \$3; Nash equilibrium.
- C. leaving price at \$3; dominant strategy.
- D. cutting price to \$2.90; Nash equilibrium.

21. In the Nash Equilibrium of a prisoner's dilemma game,

- A. there is no cash left on the table.
- B. there is unrealized opportunity for both to gain.
- C. total economic surplus is maximized.
- D. both players have equal payoffs.

		Khawlah	
		Strategy A	Strategy B
Salma	Strategy A	Salma: +5, Khawlah: +5	Salma: 0, Khawlah: +5
	Strategy B	Salma: +10, Khawlah: 0	Salma: -5, Khawlah: +10

		Cory	
		Strategy A	Strategy B
Jess	Strategy A	Jess: +5, Cory: +5	Jess: 0, Cory: -5
	Strategy B	Jess: +10, Cory: 0	Jess: -5, Cory: +10

22. Refer to the figure above. In the matrix above,
- A. Salma has a dominant strategy, but Khawlah does not.
  - B. Khawlah has a dominant strategy, but Salma does not.
  - C. both Khawlah and Salma have the same dominant strategy.
  - D. neither Khawlah nor Salma has a dominant strategy.
23. Refer to the figure above. In the matrix above, Khawlah's best response to a decision by Salma to play Strategy A is
- A. non existent.
  - B. to also choose Strategy A.
  - C. to choose Strategy B.
  - D. to choose the cell in which Khawlah's payoff is +10.



24. Refer to the figure above. This game has \_\_\_\_\_ Nash Equilibria.

- A. 0
- B. 1
- C. 2
- D. 4

25. The prisoner's dilemma refers to games in which

- A. neither player has a dominant strategy.
- B. one player has a dominant strategy and the other does not.
- C. both players have a dominant strategy which results in a lower payoff than they would earn if they play their dominated strategies.
- D. both players have a dominant strategy which results in the largest possible payoff.

26. The dilemma in the Prisoner's Dilemma comes from the fact that

- A. the outcome is purely random.
- B. no strategy is dominant.
- C. if both players play the dominant strategy they each earn a smaller payoff than had they played the dominated strategy.
- D. it was originally devised to explain the behavior of prisoners.

27. The equilibrium in a prisoner's dilemma is an example of

- A. the low-hanging fruit principle
- B. the comparative advantage principle
- C. the equilibrium principle
- D. the smart for one, dumb for all principle

		<i>Column Cruises</i>	
		Offer Reduced Summer Rates	Keep Rates High in Summer
<i>Row Resorts</i>	Offer Reduced Summer Rates	Row: 50, Column: 50	Row: 500, Column: 10
	Keep Rates High in Summer	Row: 10, Column: 500	Row: 300, Column: 300

28. Refer to the figure above. If Column Cruises offers reduced rates in the summer, and Row Resorts keeps its rates high in the summer,

- A. Both Row Resorts and Column Cruises will earn 300 in profits.
- B. Both Row Resorts and Column Cruises will earn 50 in profits.
- C. Row Resorts will earn profits of 500 and Column Cruises will earn profits of 10.
- D. Row Resorts will earn profits of 10 and Column Cruises will earn profits of 500.

29. Refer to the figure above. If Row Resorts decides to lower its rates for the summer, Column Cruises would make the most profit if it

- A. kept its rates high for the summer.
- B. also lowered its rates for the summer.
- C. entered into a cartel with Row Resorts and agreed to jointly reduce rates.
- D. It doesn't matter which strategy is chosen because Column Cruises will have the same payoff in either case.

30. Refer to the figure above. If Row Resorts decides to keep its rates high for the summer, Column Cruises would get the highest payoff by
- A. also keeping its rates high in the summer.
  - B. offering reduced summer rates.
  - C. agreeing with Row Resorts to both lower their rates at exactly the same time.
  - D. it doesn't matter which he chooses because he will have the same payoff in either case.
31. Refer to the figure above. The dominant strategy for Row Resorts is \_\_\_\_\_ and for Column Cruises is \_\_\_\_\_.
- A. to keep rates high during the summer; to keep rates high during the summer
  - B. to reduce rates during the summer; to reduce rates during the summer
  - C. to keep rates high during the summer; to reduce rates during the summer
  - D. to reduce rates during the summer; to keep rates high during the summer
32. Refer to the figure above. In this game, when both players use their dominant strategies
- A. profits are maximized.
  - B. Row Resorts earns a higher profit than does Column Cruises.
  - C. both firms do worse than they would if they played their dominated strategies.
  - D. Column Cruises earns a higher profit than does Row Resorts.

33. For a game involving two players with two possible strategies, which of the following is a requirement for a prisoner's dilemma?

- A. Neither player has a dominant strategy.
- B. The payoff to playing the dominated strategies must be more than the payoff to their dominant strategies.
- C. The payoff to playing the dominant strategies must be more than the payoff to their dominated strategies.
- D. There is no Nash equilibrium.

The table below shows the payoff matrix for players A and B to strategies X and Z.

		Player B	
		X	Z
Player A	X	\$100 for A \$75 for B	\$200 for A \$50 for B
	Z	\$50 for A \$400 for B	\$150 for A \$300 for B

34. For Player A strategy X is \_\_\_\_\_ and for Player B strategy X is \_\_\_\_\_.

- A. dominant; dominated
- B. dominated; dominant
- C. dominant; dominant
- D. dominated; dominated

35. The Nash equilibrium for this game is

- A. player A choosing strategy Z and player B choosing strategy X.
- B. player A choosing strategy X and player B choosing strategy Z.
- C. both players choosing strategy Z.
- D. both players choosing strategy X.

36. This game would be classified as a prisoner's dilemma because

- A. the players play their dominant strategies.
- B. playing their dominated strategies would increase both players' payoffs.
- C. playing dominant strategies gives both player maximum payoff.
- D. both players choose the same strategy.

The table below shows the payoff matrix in the form of short term profits for two firms, A and B, for two different strategies, investing in new capital or not.

		Firm B	
		Invest	Not Invest
Firm A	Invest	\$20 for A \$20 for B	\$70 for A \$5 for B
	Not Invest	\$5 for A \$70 for B	\$50 for A \$50 for B

37. For Firm A \_\_\_\_\_ is its dominant strategy, and for Firm B \_\_\_\_\_ is its dominant strategy.

- A. investing; not investing.
- B. not investing; investing
- C. investing; investing
- D. not investing; not investing

38. The game is an example of a(n)

- A. cartel.
- B. credible promise.
- C. prisoner's dilemma.
- D. multiple equilibria game.

39. An industrial spy comes to firm B and claims to know what firm A has decided. How much would this information be worth to firm B?

- A. 0.
- B. \$50 million.
- C. \$30 million.
- D. \$70 million.

The numbers in each cell are each firm's profits.

		<i>Column Cafe</i>	
		<i>Publish Coupons in Student Paper</i>	<i>No Coupons</i>
<i>Row Restaurant</i>	<i>Publish Coupons in Student Paper</i>	Row: 25, Column: 25	Row: 200, Column: 10
	<i>No Coupons</i>	Row: 10, Column: 200	Row: 120, Column: 120

40. If Column Cafe offers coupons, and Row Restaurants does not publish coupons,

- A. Row Restaurant will earn \$10 in profits, and Column Cafe will earn 200 in profits.
- B. Both Row Restaurant and Column Cafe will earn 25 in profits.
- C. Row Restaurant will earn profits of 200 and Column Cafe will earn profits of 10.
- D. Both Row Restaurant and Column Cafe will earn profits of 120.

41. If Row Restaurant decides to publish coupons, Column Cafe would make the most profit if it

- A. did not offer coupons.
- B. also offered coupons.
- C. it doesn't matter which strategy is chosen because Column Cafe will have the same payoff in either case.
- D. offered coupons half of the time and did not offer coupons the rest of the time.

42. The payoffs of this game are such that

- A. if Row Restaurant expects that Column Cafe will choose its dominant strategy, Row should choose to not follow its own dominant strategy.
- B. profits at both firms would be highest if both firms follow their dominant strategies.
- C. both firms would benefit from a law that made publishing coupons illegal.
- D. an agreement to not publish coupons would be stable because with these profits neither firm has an incentive to defect.

43. An agreement among firms to restrict production with the goal of earning economic profits is a

- A. pure monopoly.
- B. oligopoly.
- C. cartel.
- D. duopoly.

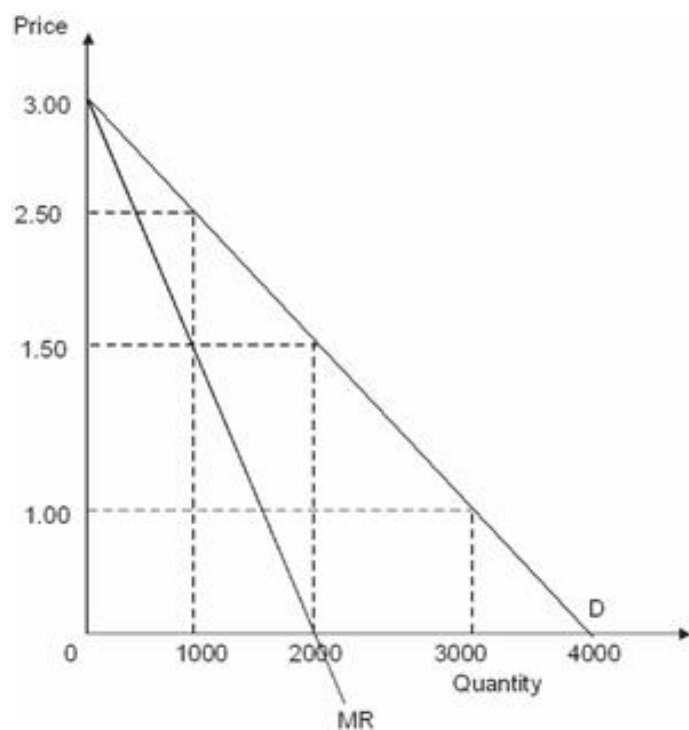
44. The reason most cartels end or cease to be effective is

- A. enforcement of antitrust legislation.
- B. the incentive to cheat on the cartel agreement.
- C. the dominant member firm buys out the other firms.
- D. consumers discover the agreement and buy from other firms.

45. Cartels would be more stable if

- A. firms that cheat on the agreement could be legally punished.
- B. firms that cheat on the agreement were better informed about the value of agreement.
- C. demand for the output was more variable.
- D. the cartel profit were higher than the profit each individual firm could earn without the cartel.

Quick Buck and Pushy Sales produce and sell identical products and face zero marginal and average cost. Below is the market demand curve for the product.



46. The profit-maximizing quantity for a monopolist with this demand curve is \_\_\_\_\_ units, which the monopolist would sell for \_\_\_\_\_.

- A. 3000; \$1.00
- B. 1000; \$1.50
- C. 2000; \$1.50
- D. 1000; \$2.50

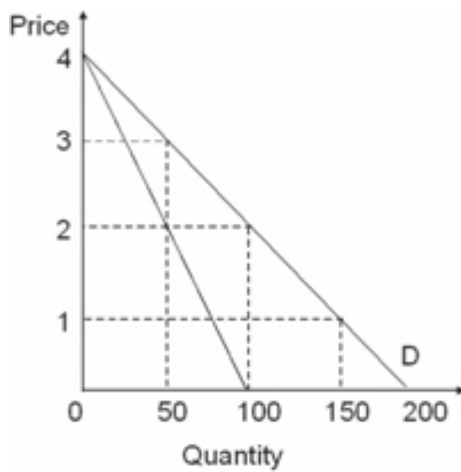


47. If Quick Buck and Pushy Sales decide to collude and work as a pure monopolist so that each firm will produce half the quantity demanded by the market, what will be the economic profit for Quick Buck?
- A. \$1000
  - B. \$1500
  - C. \$2000
  - D. \$3000
48. Suppose Quick Buck cheats on Pushy Sales and reduces its price to \$1.00 each while Pushy Sales continues to comply with the collusive agreement. Quick Buck would then sell \_\_\_\_\_ units and Pushy Sales would sell \_\_\_\_\_ units.
- A. 0; 3000
  - B. 1500; 1500
  - C. 2000; 1000
  - D. 3000; 0
49. Suppose Quick Buck cheats on Pushy Sales and reduces its price to \$1.00 each while Pushy Sales continues to comply with the collusive agreement. What will be the economic profit for Quick Buck?
- A. \$6000
  - B. \$1500
  - C. \$2000
  - D. \$3000

50. Suppose Quick Buck cheats on Pushy Sales and reduces its price to \$1.00 and Pushy Sales matches the price cut. What will be the economic profit for Quick Buck?

- A. \$1000
- B. \$1500
- C. \$2000
- D. \$3000

Suppose Firm A and Firm B produce and sell identical product with zero marginal and average cost. Following is the market demand curve for the product.



51. The profit-maximizing quantity and price for a monopolist with this demand curve are \_\_\_\_\_.

- A. 50 units and \$2
- B. 100 units and \$2
- C. 50 units and \$3
- D. 100 units and \$1

52. If Firm A and Firm B decide to collude and work as a pure monopolist such that each firm will produce half the quantity demanded by the market, what will be the economic profit for Firm B?
- A. \$0
  - B. \$50
  - C. \$100
  - D. \$150
53. Suppose Firm A and Firm B have colluded to work as a pure monopolist, but Firm B cheats on Firm A and reduces its price to \$1.00/ each. Firm B would then sell \_\_\_\_ units and Firm A would sell \_\_\_\_ units.
- A. 150; 50
  - B. 100; 50
  - C. 150; 0
  - D. 100; 0
54. Suppose Firm A and Firm B have colluded to work as a pure monopolist, but Firm B cheats on Firm A and reduces its price to \$1.00/ each. How much profit will Firm B earn?
- A. \$75
  - B. \$100
  - C. \$150
  - D. \$200

55. Suppose Firm A and Firm B have colluded to work as a pure monopolist, but Firm B cheats on Firm A and reduces its price to \$1.00/ each. If Firm A matches the price cut, what will Firm A's economic profit be?
- A. \$75
  - B. \$100
  - C. \$150
  - D. \$200
56. OPEC is an example of a(n)
- A. monopsony.
  - B. cartel.
  - C. monopoly.
  - D. duopoly.
57. Suppose that market demand for bottled water is low enough that one firm could supply all of the demand. Two firms enter the market and agree to charge a price above the marginal cost of production. We can expect that
- A. they will make a considerably large profit.
  - B. they will work better than a cartel.
  - C. this agreement will collapse.
  - D. if one firm does not honor the agreement the other firm will sue for breach of contract.

58. Cigarette manufacturers once relied heavily on TV advertising. According to the textbook, when the U.S. government banned TV ads, the cigarette manufacturers

- A. supported the ban due to their concern over health effects of smoking.
- B. felt their First Amendment rights were being violated.
- C. were made worse off because the ban significantly reduced cigarette sales.
- D. benefited because their advertising prisoner's dilemma was solved.

Suppose that the market for bread contains two firms: Bread World (BW) and Breads'R'Us (BRU). The owners of the two firms decide to fix the price of bread. The table shows the total profits the firms will earn if they abide by the price setting agreement or if they cheat on the agreement.

		Bread World	
		Cheat	Abide
Breads'R'US	Cheat	BRU: \$40, BW: \$40	BRU: \$80, BW: \$80
	Abide	BRU: \$0, BW: \$80	BRU: \$45, BW: \$45

59. For Bread World, \_\_\_\_\_ is its \_\_\_\_\_.

- A. abiding by the agreement; dominant strategy
- B. cheating on the agreement; dominated strategy
- C. cheating on the agreement; dominant strategy
- D. abiding by the agreement; dominant strategy when Breads'R'Us also abides.

60. For Breads 'R' Us, \_\_\_\_\_ is its \_\_\_\_\_.

- A. abiding by the agreement; dominant strategy
- B. cheating on the agreement; dominated strategy
- C. cheating on the agreement; dominant strategy
- D. abiding by the agreement; dominant strategy when Bread World also abides.

61. This game has \_\_\_\_\_ with \_\_\_\_\_.

- A. a Nash equilibrium; both firms abiding by the agreement
- B. no equilibrium; no prediction about which strategy will be chosen
- C. a Nash equilibrium; both firms cheating
- D. a Nash equilibrium; Bread World cheating and Breads 'R' Us abiding

62. This game is \_\_\_\_\_ prisoner's dilemma because \_\_\_\_\_.

- A. not a; cheating has the highest payoff for both firms.
- B. a; if both firms played their dominated strategy profits would be higher than if they play their dominant strategies.
- C. a; if both firms played their dominant strategy profits would be higher than if they play their dominated strategies.
- D. not a; neither firm has a dominant strategy.

63. Suppose a new element was introduced into the agreement: if one firm cheats today, the other firm will cheat tomorrow but if one firm abides today, the other will abide tomorrow. This strategy pattern is known as

- A. the prisoner's dilemma
- B. cartel-like behavior
- C. tit-for-tat.
- D. mutual cooperation

64. Suppose the firms agree to the following: if one firm cheats today, the other firm will cheat tomorrow but if one firm abides today, the other will abide tomorrow. The likely effect of this agreement would be
- A. to increase the probability that both firms would cheat.
  - B. to increase the probability that Bread World would cheat.
  - C. to increase the probability that both firms would abide.
  - D. to increase the probability that Breads 'R' Us would cheat.
65. Which of the following core principles applies to the prisoner's dilemma?
- A. No cash on the table.
  - B. Smart for one, dumb for all.
  - C. Low hanging fruit.
  - D. Scarcity.
66. According to the text, at a party everyone shouts in order to be heard. If instead everyone spoke at a normal volume people would still be heard. The likely reason that people continue to shout is that the
- A. individual incentive to be heard is smaller than group incentive for everyone to be heard.
  - B. individual incentive to be heard is greater than group incentive for everyone to be heard.
  - C. individuals will never do better by speaking more loudly.
  - D. prisoner's dilemma does not work in a party.

67. A strategy that limits defection in a repeated prisoner's dilemma game is

- A. a Nash equilibrium.
- B. tit-for-tat.
- C. a cartel.
- D. an ultimatum bargaining game.

68. The tit-for-tat strategy only works for prisoner's dilemma games that

- A. have only one Nash equilibrium.
- B. are played only one time.
- C. have no Nash equilibrium.
- D. are repeated.

69. In tit-for-tat, if your partner \_\_\_\_\_ on the first interaction you would then \_\_\_\_\_ in your next interaction with her.

- A. defected; cooperate
- B. defected; defect
- C. cooperates; defect
- D. defected; refuse to play

70. A decision tree is used when modeling

- A. any type of game.
- B. simultaneous decisions.
- C. a prisoner's dilemma
- D. games in which timing matters.



71. A \_\_\_\_ describes all of the possible moves in a game in sequence and the payoffs to each possible combination of moves.
- A. decision tree.
  - B. payoff matrix.
  - C. game graph.
  - D. multi-period game.
72. A credible threat is an action that is
- A. possible to carry out.
  - B. legally enforceable.
  - C. in the threatener's self interest to carry out.
  - D. not in the threatener's self interest to carry out.
73. A credible promise is an action that is
- A. in the promiser's self interest to keep.
  - B. legally enforceable.
  - C. made by an honest person.
  - D. possible to keep.
74. The essential characteristic of a credible threat is
- A. that the threatener has a reputation for carrying out threats.
  - B. that the threatener ignores the costs of carrying out the threat.
  - C. that the threatener and the threatenees know each other well.
  - D. that it is in the threatener's self interest to act on the threat.

75. The essential characteristic of a credible promise is

- A. it must be spoken with great sincerity.
- B. it must be in the self interest of the promiser to keep the promise.
- C. that the promise be in writing.
- D. that it is legally enforceable.

Suppose Yasmin and Nadia are trying to decide what to do on a Friday. Yasmin would prefer to see a comedy while Nadia would prefer to see a documentary. One documentary and one comedy are showing at the local cinema. The utilities they receive from seeing the films either together or separately are shown in the payoff matrix. Both Yasmin and Nadia know the information contained in the payoff matrix. They purchase their tickets simultaneously, ignorant of the other's choice.

		Yasmin	
		Comedy	Documentary
Nadia	Comedy	Nadia: 3, Yasmin: 5	Nadia: 1, Yasmin: 5
	Documentary	Nadia: 2, Yasmin: 2	Nadia: 5, Yasmin: 2

76. Yasmin has

- A. no dominant strategy.
- B. a dominant strategy of seeing a comedy.
- C. a dominant strategy of seeing a documentary.
- D. two dominant strategies, depending on Nadia's choice.

77. Nadia has

- A. no dominant strategy.
- B. a dominant strategy of seeing a comedy.
- C. a dominant strategy of seeing a documentary.
- D. two dominant strategies, depending on Yasmin's choice.

78. This game

- A. is a prisoner's dilemma.
- B. is not a prisoner's dilemma.
- C. is an ultimatum bargaining game.
- D. has no Nash equilibrium.

79. This game has \_\_\_\_\_ Nash equilibrium.

- A. 0.
- B. 1.
- C. 2.
- D. 4.

80. Suppose a timing element is added to the game, and that Yasmin buys a ticket first. While Nadia did not see which ticket Yasmin bought, Nadia does know the values in the payoff matrix and that Yasmin has purchased first. Assuming that Yasmin and Nadia are both self-interested, Nadia can infer

- A. that Yasmin bought a ticket for the documentary.
- B. that Yasmin did not exploit the first-mover advantage.
- C. that Yasmin bought a ticket for the comedy.
- D. that Yasmin's threat to buy a ticket for the comedy is not credible.

81. Assuming Nadia is self-interested and believes Yasmin is as well, if Nadia knows that Yasmin bought a ticket first, Nadia will
- A. be indifferent between the two movies.
  - B. buy a ticket to the comedy.
  - C. flip a coin.
  - D. buy a ticket to the documentary.
82. Suppose Yasmin picks first and chooses the comedy and then Nadia choose the comedy. The reason Nadia selected the comedy is that
- A. Nadia receives a higher payoff choosing comedy when Yasmin has chosen comedy.
  - B. Nadia must establish a reputation for keeping promises even if it is not in Nadia's immediate self-interest to do so.
  - C. selecting the comedy is Nadia's dominant strategy regardless of Yasmin's choice.
  - D. this is a prisoner's dilemma, and so the players do best when choosing the same strategy.
83. In sequential games, the player who moves first
- A. always has a first-mover advantage.
  - B. has a first-mover advantage only when he or she is able to make a credible threat or promise to choose a dominated strategy.
  - C. has a first-mover advantage only when the second mover fails to choose the dominant strategy.
  - D. sometimes has an advantage and sometimes has a disadvantage.

84. A monopolistically competitive firm

- A. sells products that are perfect substitutes for its competitors' products, so must compete on the basis of location.
- B. sells products that are close substitutes for its competitors' products, so will locate as far away from its competitors as possible.
- C. sometimes distinguishes its output from that of its competitors by locating in a more convenient place.
- D. will be more successful the more similar its output is to its competitors' output.

85. If Harold Hotelling's insight about location is extended to other firm decisions, you would expect the output of monopolistically competitive firms to become

- A. more differentiated over time.
- B. more similar over time, while location, hours and other features become more differentiated over time.
- C. more similar over time, with location, hours and other features also becoming more similar over time.
- D. lower in quality over time.

86. Suppose that you have noticed that almost all of the car dealers in your city are located along a 3-block stretch of the same street. A likely reason for this clustering of car dealers is that

- A. the dealers are better able to form a cartel.
- B. each dealer is attempting to locate closest to the customers.
- C. there is a social norm in that city that dealers follow in choosing location.
- D. each dealer sells a different brand of car, so they are not competitors and do not have to be concerned about the other dealers' locations.

One thousand adults live in your town, and all of them leave work at 4:30 p.m. everyday and arrive home at exactly 5:00. They all go to bed at 9 p.m. Three telemarketers selling cruises to Sharm El Sheikh, Alpha, Beta, and Gamma, have targeted the town's population. Because the cruises are identical, the first telemarketer to call a willing consumer will get the sale.

87. The solution to the firms' problem will involve

- A. differentiation by timing
- B. differentiation by geographic location
- C. exploiting perfectly inelastic demand
- D. differentiation by quality

88. Beta's manager has decided that the best time to call is 7:00 because it is exactly halfway between 5:00 p.m. and bedtime.

- A. Beta is certain to make the most sales because all customers are 2 hours or less away from a phone call.
- B. Alpha and Gamma will have an incentive to also make calls at 7:00, causing clustering at the halfway point in the evening.
- C. Alpha and Gamma will divide up the rest of the market, with one choosing to call at 6:00 and the other at 8:00.
- D. Beta's manager did not choose wisely.

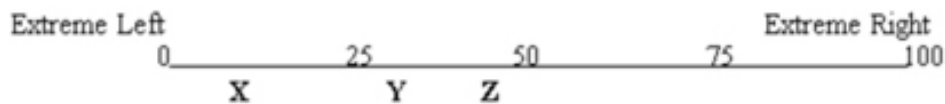
89. Calls made by telemarketers at each firm will tend to

- A. be evenly distributed throughout the evening.
- B. cluster near 5:00 p.m.
- C. cluster near 6:00 p.m.
- D. cluster near 7:00 p.m.

90. The last time you went on a road trip, you noticed that there were several fast food outlets clustered near some highway exits, but none at the others. Now that you are familiar with Hotelling's model you know that the reason for this is

- A. zoning laws.
- B. firms vying for a favorable location.
- C. failure by the firms to correctly distribute themselves.
- D. the existence of fast food cartels.

Hotelling's model has been used to describe differentiation in the political "market." Suppose that 100 voters are evenly arrayed between the extreme left and the extreme right on the political spectrum, and that all voters vote, and they always vote for the candidate closest to them on this spectrum. The numbers on this spectrum represent the number of voters lying to the left of the number. So, at the midpoint, fifty voters lie to the left and fifty to the right. At the extreme right end, all 100 voters lie to the left.



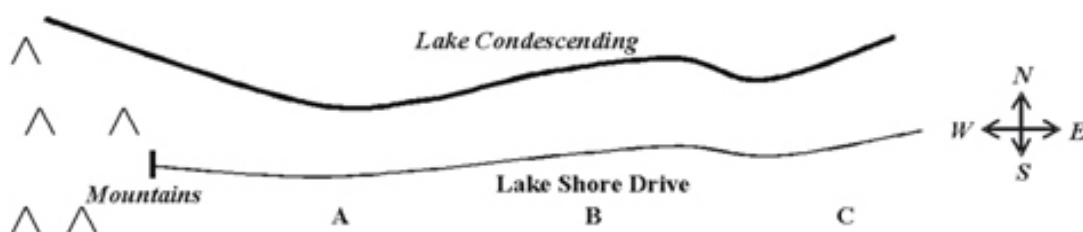
91. If Candidate X is running for office against Candidate Z, the result will be that

- A. all voters to the left of Z will vote for X, and all voters to the right of Z will vote for Z.
- B. all voters who would have voted for Candidate Y will vote for Candidate X.
- C. Candidate Z will certainly win.
- D. Candidate X might win, but the result is uncertain.

92. Suppose Candidate X is running against Candidate Y. If Candidate Z enters the race,
- A. approximately half of the voters who were going to vote for X will now vote for Z.
  - B. X will certainly win because Y and Z compete for the same voters.
  - C. all of the voters who were going to vote for Y will now vote for Z.
  - D. most of the voters who were going to vote for Y will now vote for Z.
93. If Candidate X is running against Candidate Z, by moving to the right Candidate X would
- A. lose some votes from the far left but gain approximately the same number of votes from Z.
  - B. not lose any votes from the left and gain some from Z.
  - C. force Z to move farther to the right in order to keep the same number of votes.
  - D. win the election if the move placed X anywhere to the right of the 25 mark on the spectrum.
94. If Candidate Y is running against Candidate Z,
- A. Candidate Y will have an incentive to move to the left, and Candidate Z will have an incentive to move to the right.
  - B. Both candidates will have an incentive to move to the left.
  - C. Both candidates will have an incentive to move toward each other's position.
  - D. Neither candidate has any incentive to move.



Miniville is an isolated town located on the southern shore of Lake Condensing, a very large lake. The western edge of Miniville is adjacent to impassable mountains and there are no towns or businesses for many miles to the east. The 300 residents of Miniville are evenly distributed along 3 miles of shoreline on the lake, east of the mountains. Lake Shore Drive, the only street in town, provides access to Miniville's homes and businesses. All residents live between the lake and the street, while businesses may locate on the other side of the street. Lake Shore Drive is 3 miles long, and the points labeled A, B, and C are 1, 2, and 3 miles from the western end of Lake Shore Drive respectively. All residents of Miniville shop at the store located closest to their homes.



95. \_\_\_\_ residents of Miniville live west of point B and \_\_\_\_ live east of point A.

- A. 100; 200
- B. 150; 150
- C. 200; 200
- D. 200; 100

96. Because all residents of Miniville shop at the store located closest to their homes, the optimal location for the first store to open in Miniville is

- A. at the western end of Lake Shore Drive
- B. there is no single optimal location for the first store.
- C. Point A.
- D. Point C.

97. If one store is located at A and the other store is located at B,

- A. all of the people living between A and the mountains will shop at the store at A.
- B. some, but not all, of the people living east of B will shop at the store at B.
- C. exactly half of the people living west of B will shop at the store at B.
- D. exactly half of the people living east of B will shop at the store at B.

98. If one store is located at A and the other store is located at C,

- A. 150 people will shop at each store.
- B. 200 people will shop at the store at A, and 100 people will shop at the store at C.
- C. 100 people will shop at the store at A, and 200 people will shop at the store at C.
- D. 100 people will certainly shop at each store, but where the other 100 will shop is indeterminate.

99. If the first store to open in Miniville is located at A, to maximize the number of customers it attracts, the next store to open should locate

- A. just west of A
- B. at B
- C. at C
- D. just east of A

- 100.If three stores were to open sequentially, you would expect that those stores would be located
- A. at points A, B, and C.
  - B. halfway between the mountains and A, halfway between A and B, and halfway between B and C.
  - C. in a cluster, near point B.
  - D. in a cluster, near the location chosen by the first store to locate.
- 101.According to the text, the observation that many New York – Los Angeles flights leave exactly on the hour is due to
- A. air traffic controllers' preferences.
  - B. clustering by competing firms to attract customers.
  - C. cartel-like behavior.
  - D. an effort to make flight times easier to remember for passengers.
- 102.When players cannot achieve their goals because they are unable to make credible threats or promises, the situation is called
- A. the prisoner's dilemma.
  - B. a Nash equilibrium.
  - C. a failure of dominant strategies.
  - D. a commitment problem.

103. A commitment problem exists when

- A. players cannot make credible threats or promises.
- B. players cannot make threats.
- C. there is a prisoner's dilemma.
- D. players cannot make promises.

104. An action that makes otherwise empty threats or promises credible is called a(n)

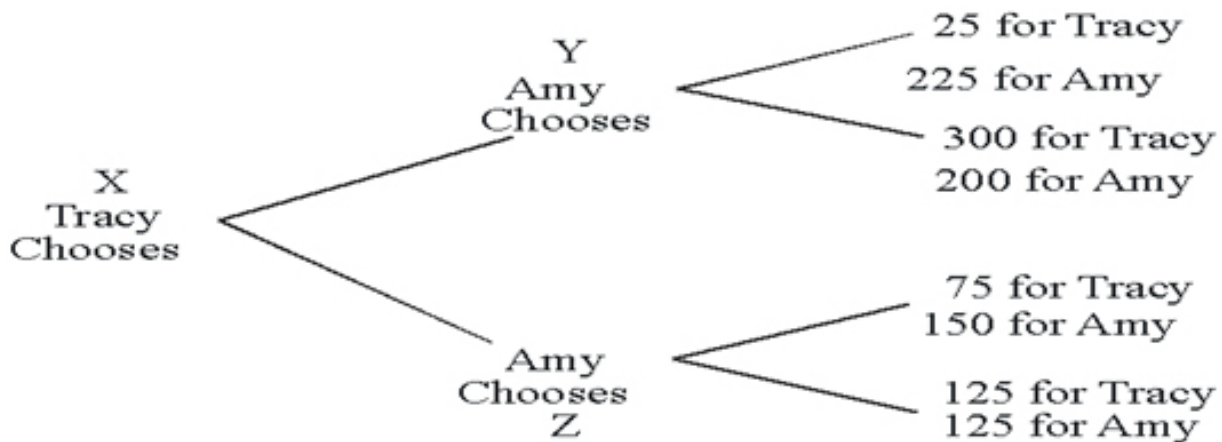
- A. Nash equilibrium.
- B. commitment device.
- C. strategic device.
- D. dominant strategy.

105. According to the textbook, one possible way of solving the commitment problem in the kidnapping game is for the victim to

- A. give the kidnapper a blank check.
- B. promise never to reveal the kidnapper's identity.
- C. offer to cut off one finger to show his sincerity.
- D. do something illegal and allow the kidnapper to record it.

106. According to the textbook, owners of restaurants have solved the \_\_\_\_\_ their wait staff by paying low wages and encouraging tipping by customers.

- A. credible threats by
- B. commitment problem with
- C. credible promises by
- D. salary problems of



In the above decision tree, Yusra picks first and Amal picks second. Yusra knows Amal's payoffs to each choice and Amal knows Yusra's payoffs.

107. Based solely on the information in this decision tree, we can predict that

- A. Yusra will always make the decision to give Amal the choice at Y, and Amal will then choose the lower branch.
- B. Amal will make a credible promise to pick the lower branch if given the choice at Y and Yusra will make the decision to give Amal the choice at Y.
- C. Yusra will always make the decision to give Amal the choice at Z and Amal will then choose the upper branch.
- D. Yusra will always make the decision to give Amal the choice at Z and Amal will then choose the lower branch.

108. Given the information in this decision tree, the equilibrium outcome of this game will be for Amal to choose the \_\_\_\_\_ after Yusra has made the decision that gives Amal the choice at \_\_\_\_\_.

- A. lower branch; Y
- B. upper branch; Y
- C. lower branch; Z
- D. upper branch; Z

109. If the payoffs at the end of each branch are as shown, the outcome of this game will be

- A. Yusra and Amal both get 125.
- B. Yusra gets 75 and Amal gets 150
- C. Yusra gets 300 and Amal gets 200
- D. Yusra gets 25 and Amal gets 225

110. If before Yusra chose, Amal could make a credible commitment to choose either the top or bottom branch when her turn came, Yusra would make the decision to give Amal the choice at \_\_\_\_\_ and Amal would choose the \_\_\_\_\_.

- A. Z; top branch
- B. Z; lower branch
- C. Y; lower branch
- D. Y; top branch

111.If before Yusra chose, Amal could make a credible commitment to choose either the top or bottom branch when her turn came, Yusra would get a payoff of \_\_\_\_\_ and Amal would get a payoff of \_\_\_\_\_.

- A. 25; 225
- B. 300; 200
- C. 75; 150
- D. 125; 125

112.The equilibrium to the game results in \_\_\_\_\_ for Amal and Yusra relative to what they would receive if they could solve their \_\_\_\_\_.

- A. lower payoffs; prisoner's dilemma.
- B. higher payoffs; commitment problem
- C. lower payoffs; credible threat.
- D. lower payoffs; commitment problem.

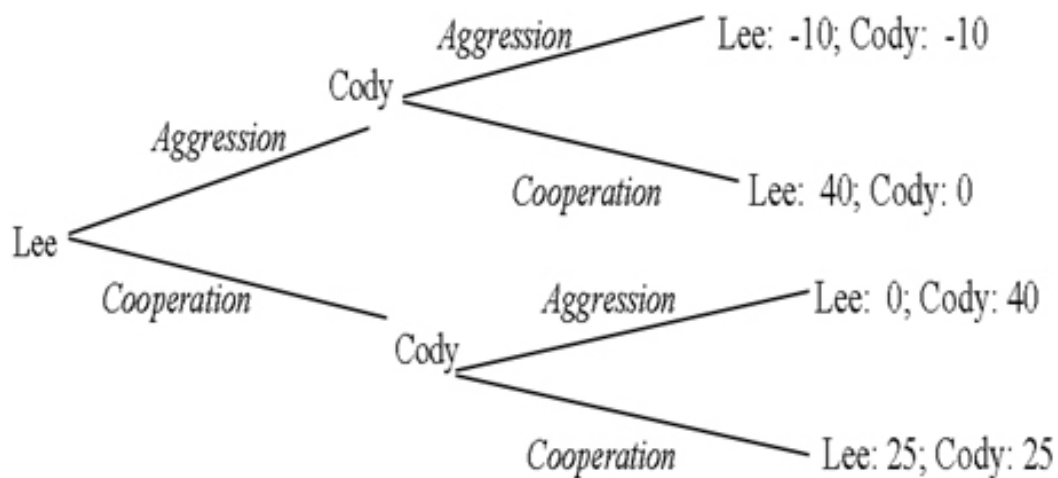
113.Which of the following is not a commitment device used to overcome a commitment problem?

- A. A non-refundable advance payment to reserve a room at a resort.
- B. A manufacturer's 2-year agreement to fix, at no cost to you, anything that breaks on your computer.
- C. An agreement that provides for a large penalty in the event a business partner reveals trade secrets to a competitor.
- D. High fines for illegal parking on campus.

114. One reason that commitment problems arise is that

- A. people do not always correctly identify their own dominant strategy.
- B. players cannot trust that other players will avoid playing their dominated strategy.
- C. following through on a threat or promise often violates the cost-benefit principle.
- D. commitments cannot be purchased.

Lutfi and Kassim are competitors. Each is considering whether to take aggressive action against the other or to cooperate. Kassim can observe Lutfi's decision. Their decision tree can be diagrammed as follows:



115. If Lutfi is aggressive, Kassim will respond with \_\_\_\_\_ and if Lutfi cooperates, Kassim will respond with \_\_\_\_\_.

- A. Aggression; Cooperation
- B. Aggression; Aggression
- C. Cooperation; Aggression
- D. Cooperation; Cooperation



116. Suppose Kassim tells Lutfi that any aggression on Lutfi's part will be met with aggression, but that if Lutfi cooperates, Kassim will respond cooperatively. Kassim's statement is

- A. a commitment device.
- B. a non-credible threat and promise.
- C. a description of the two equilibria for this game.
- D. a credible threat and promise.

117. The equilibrium for this game is for Lutfi to choose \_\_\_\_\_ and for Kassim to be \_\_\_\_\_ in response.

- A. aggression; cooperative
- B. aggression; aggressive
- C. cooperation; cooperative
- D. cooperation; aggressive

118. Suppose Lutfi and Kassim enter into a binding non-aggression agreement. As part of that agreement they negotiate a fine that Kassim would have to pay to Lutfi if Kassim responded to Lutfi's passive choice with aggression. For that fine to be effective, it must be

- A. less than 15
- B. greater than 15
- C. equal to 40
- D. equal to 25.

Mexico and the members of OPEC produce crude oil. Realizing that it would be in their best interests to form an agreement on production goals, a meeting is arranged and an informal, verbal agreement is reached. If both Mexico and OPEC stick to the agreement OPEC will earn profits of \$200 million and Mexico will earn profits of \$100 million. If both Mexico and OPEC cheat then OPEC will earn \$175 million and Mexico will earn \$80 million. If only OPEC cheats, then OPEC earns \$185 million and Mexico \$60 million. If only Mexico cheats, then Mexico earns \$110 million and OPEC \$150 million.

		OPEC	
		Cheat	Abide
Mexico	Cheat		
	Abide		

119. To Mexico, the payoff to cheating is either

- A. \$60 million or \$100 million.
- B. \$150 million or \$200 million.
- C. \$80 million or \$110 million.
- D. \$100 million or \$110 million.

120. To OPEC, the payoff to not cheating is either

- A. \$150 million or \$200 million.
- B. \$200 million or \$185 million.
- C. \$60 million or \$100 million.
- D. \$175 million or \$185 million

121. Mexico finds that it has

- A. no dominant strategy.
- B. a dominant strategy of not cheating.
- C. no dominated strategy.
- D. a dominant strategy of cheating.

122. OPEC finds that it has

- A. a dominant strategy of cheating.
- B. a dominated strategy of cheating.
- C. a dominant strategy of not cheating.
- D. no dominant strategy.

123. The outcome of this game is

- A. a Nash equilibrium with both Mexico and OPEC not cheating.
- B. a Nash equilibrium with both Mexico and OPEC cheating.
- C. a Nash equilibrium with Mexico cheating and OPEC not cheating.
- D. a Nash equilibrium with Mexico not cheating and OPEC cheating.

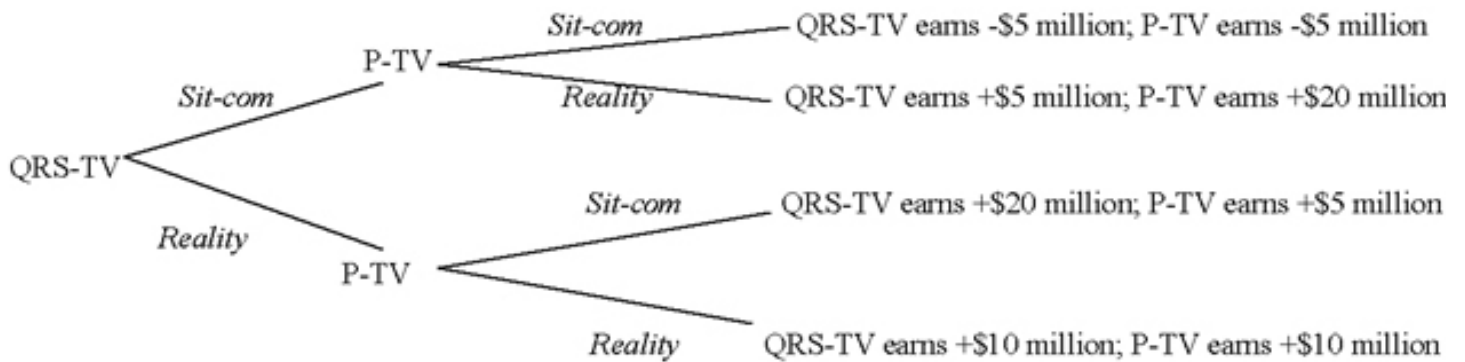
124. This game would \_\_\_\_\_ because \_\_\_\_\_.

- A. be a prisoner's dilemma; not cheating is better for both
- B. not be a prisoner's dilemma; cheating is better for both
- C. be a prisoner's dilemma; cheating is better for both
- D. not be a prisoner's dilemma; OPEC does not have a dominant strategy

125. Suppose Mexico picks its strategy first and OPEC knows what they choose. OPEC told Mexico that in the event Mexico cheats on the agreement, OPEC will cheat as well but if Mexico does not cheat, neither will OPEC. This is an example of a(n) \_\_\_\_\_ and the outcome is that \_\_\_\_\_

- A. commitment problem; neither will cheat.
- B. credible threat and promise; neither will cheat.
- C. prisoners dilemma; both will cheat.
- D. not credible threat or promise; both will cheat.

P-TV and QRS-TV are planning their fall line-up. Suppose that sit-coms are more popular than reality shows, and so generate more advertising revenue than do reality shows, but they are more expensive to produce since real actors need to be hired. In the following decision tree, QRS-TV announces its decision first and P-TV observes that choice before it decides whether to air a sit-com in the same time slot or a reality show. Both stations know all of the information shown in this diagram when they make their decisions.



126. Given the information in this decision tree, if QRS-TV announces that it will air a sit-com, it can expect to

- A. lose \$5 million
- B. earn \$5 million
- C. earn \$10 million
- D. earn \$29 million

127. Given the information in this decision tree, if QRS-TV announces that it will air a reality show, it can expect to

- A. lose \$5 million
- B. earn \$5 million
- C. earn \$10 million
- D. earn \$20 million

128. P-TV will air a sit-com

- A. only if QRS-TV is also airing a sit-com.
- B. only if QRS-TV is airing a reality show.
- C. always.
- D. never.

129. Given the information in this decision tree, this season programming in this time slot on QRS-TV and P-TV will be

- A. only reality shows.
- B. only sit-coms.
- C. a sit-com on QRS-TV and a reality show on P-TV.
- D. a reality show on QRS-TV and a sit-com on P-TV.

130. Suppose QRS-TV enters into an agreement with P-TV that gives QRS-TV the exclusive right to air a reality show during this time slot. QRS-TV would have to pay P-TV \_\_\_\_\_ in order to persuade P-TV to enter into this agreement.

- A. more than \$5 million
- B. nothing
- C. at least \$10 million
- D. more than zero, but less than \$5 million

131. Suppose QRS-TV enters into an agreement with P-TV that gives QRS-TV the exclusive right to air a reality show during this time slot. QRS-TV would be willing to pay P-TV \_\_\_\_\_ in order to persuade P-TV to enter into this agreement.

- A. no more than \$10 million
- B. nothing
- C. at least \$10 million
- D. more than zero, but less than \$5 million

132. If someone informs a sales clerk that he was given \$20 in change when he was only owed \$10, one can conclude,

- A. the individual is irrational.
- B. preferences to be honest altered his motivation and choice.
- C. the individual is wealthy.
- D. somebody else must have witnessed the error.

133. Relative to a world in which some people are motivated by nonmaterial incentives, if all people were motivated solely by financial incentives

- A. transactions in the business world would be the same, but personal interactions would not.
- B. economic efficiency would be achieved more often.
- C. commitment devices would not be necessary, because there would be no commitment problems.
- D. both business transactions and personal interactions would be different.

134. According to the textbook, in the game where player A divides a sum of money and then player B accepts or rejects the division, the most common distribution for A to propose is

- A. 99% for A and 1% for B.
- B. 80% for A and 20% for B.
- C. 50% for A and 50% for B.
- D. 70% for A and 30% for B.

135. Only one of the following behaviors is fully consistent with the assumption of narrowly self-interested individuals. Which one?

- A. Leaving a tip at an out of town restaurant.
- B. Getting the lowest price on a new car.
- C. Taking only one newspaper out of the machine.
- D. Returning a lost wallet full of cash to the owner.

136. A purely self-interested diner is more likely to tip

- A. never.
- B. only when dining in a very up-scale restaurant.
- C. only when dining in a restaurant at which he often eats.
- D. always, to assure good service.

137. The solution to a commitment problem

- A. must be a change in the material incentives.
- B. is never a change in the psychological incentives.
- C. must be a change in the psychological incentives.
- D. can be a change in the material incentives, the psychological incentives or both.

138. Emotions like guilt and sympathy

- A. are irrelevant to economic decision-making.
- B. reduce the likelihood that a transaction will maximize total economic surplus.
- C. can solve commitment problems, increasing players' payoffs.
- D. can solve commitment problems, but generally reduce players' payoffs.



Suppose there are two small island countries: Avarice, which is populated by people who are completely self-interested and Altruism, which is populated by people who have adopted social norms of generosity and cooperation.

139. Commitment problems will be

- A. largely avoided in Avarice, but prevalent in Altruism.
- B. largely avoided in Altruism, but prevalent in Avarice.
- C. prevalent on both islands.
- D. largely avoided on both islands.

140. If two residents of Avarice play the Prisoner's Dilemma game, they are likely to

- A. never reach the Nash Equilibrium
- B. reach the Nash Equilibrium more often than would residents of Altruism.
- C. reach the Nash Equilibrium less often than would residents of Altruism.
- D. play their dominated strategies more often than would residents of Altruism.

141. Suppose residents of each island often play prisoner's dilemma games, always matched with a person from the same island, but not a person who they know or will play with again. If the same number of games is played, you would expect that

- A. Avarice players will have higher average payoffs than Altruism players.
- B. players on both islands will quickly converge to playing the Nash Equilibrium all of the time.
- C. Altruism players will have higher average payoffs than Avarice players.
- D. players on both islands will quickly converge to the higher-payoff non Nash Equilibrium result.

142. The use of psychological incentives to solve commitment problems would be least effective in games played

- A. repeatedly between strangers.
- B. once between family members.
- C. repeatedly between family members.
- D. once between strangers.

143. When parents encourage their children to be honest and punish them when they are not is an example of

- A. child abuse.
- B. using material incentives to solve commitment problems.
- C. old fashioned parenting.
- D. using preferences to solve commitment problems.

# Chapter 09 Testbank Key

1. Game theory provides tools that are used to model
- A. how perfectly competitive firms behave.
  - B. cost functions faced by firms.
  - C. consumer demand.
  - D. interdependence.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #1*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

2. The three elements of a game are
- A. the firm, the consumers and the profit
  - B. the players, the strategies and the payoffs
  - C. the model, the graph and the costs
  - D. the costs, the revenue and the profit

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #2*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

3. Game theory is not useful in understanding perfect competition because

- A. by assumption, the firms are so small as to be unable to influence price and thus are not interdependent.
- B. perfectly competitive firms are honest.
- C. the players can't be identified.
- D. the payoffs to their choices are unknown.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #3*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

4. Which of the following situations does not involve game theory?

- A. Buying a pair of pants at the Gap.
- B. The government deciding to spend more on defense.
- C. Intel debating whether to lower the price on its microprocessors.
- D. A student considering cheating on this exam.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #4*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

5. A payoff matrix is used to show
- A. the payoff to being a monopolist relative to a competitive firm.
  - B. the demand curve faced by two competing firms.
  - C. each player's payoffs in each possible combination of strategies.
  - D. the sequence of strategies played in a game over time.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #5*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

		<b>Khalid</b>	
		A	B
<b>Rami</b>	C	D	E
	F	G	H

*Frank - Chapter 09*

6. Refer to the figure above. In the payoff matrix shown, which cells would show Rami's possible strategies?
- A. C and F
  - B. A and B
  - C. D, E, G and H
  - D. D and G

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #6*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

7. Refer to the figure above. In the payoff matrix shown, Khalid may choose
- A. from among D, E, G and H.
  - B. D only if Rami has chosen C first.
  - C. G only if Rami has also chosen G.
  - D. between A and B.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #7*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

8. Refer to the figure above. In the payoff matrix show, the letter D denotes
- A. Rami's payoff from choosing D.
  - B. Khalid' payoff from choosing D.
  - C. each player's payoff if they both choose D.
  - D. each player's payoff if Khalid chooses A at the same time Rami chooses C.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #8*

*Learning Objective: 09-01 Describe the basic elements of a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

9. Refer to the figure above. If Khalid chooses B, the payoffs will be
- A. E
  - B. H
  - C. either E or H
  - D. B

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10. Refer to the figure above. A dominant strategy occurs when
- A. one player has a strategy that yields the highest payoff regardless of the other player's choice.
  - B. both players have a strategy that yields the highest payoff independent of the other's choice.
  - C. both players make the same choice.
  - D. the payoff is the maximum possible combination of payoffs in the game.

		Player B	
		LEFT	RIGHT
Player A	UP	5 for A 30 for B	10 for A 12 for B
	DOWN	-2 for A 10 for B	8 for A 15 for B

11. Refer to the figure above. In this game, how many dominant strategies does Player A have?
- A. 0
  - B. 1
  - C. 2
  - D. 4

12. Refer to the figure above. In this game, how many dominant strategies does Player B have?

A. 0

B. 1

C. 2

D. 4

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #12*

*Learning Objective: 09-03 Recognize and show the effects of dominant strategies.*

*Section: Using Game Theory to Analyze Strategic Decisions*

13. Refer to the figure above. In this game, the dominated strategy for Player A

A. is to play up.

B. is to cooperate with Player B.

C. is to play down.

D. will depend on Player B's move.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #13*

*Learning Objective: 09-03 Recognize and show the effects of dominant strategies.*

*Section: Using Game Theory to Analyze Strategic Decisions*



14. Refer to the figure above. How many equilibria are there?

A. 0

**B.** 1

C. 2

D. 3

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #14*

*Learning Objective: 09-02 Define and find an equilibrium for a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

15. Refer to the figure above. Player B can infer that Player A will

A. always choose the Down strategy.

**B.** always choose the Up strategy.

C. choose Down when B chooses Left and choose Up when B chooses Right.

D. choose Up when B chooses Left and Down when B chooses Right.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #15*

*Learning Objective: 09-03 Recognize and show the effects of dominant strategies.*

*Section: Using Game Theory to Analyze Strategic Decisions*

16. Refer to the figure above. Player A can infer that Player B will

**A.** always choose the Left strategy.

B. always choose the Right strategy.

C. choose Left when A chooses Up and choose Right when A chooses Down.

D. Player A cannot infer anything about what Player B will do given this matrix.

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Jalal is the owner of the 24-7 Mini Mart, Salah is the owner of the 24-365 Mini Mart and together they are the only gas stations in town. At the current price of \$3 per gallon both receive total revenues of \$1,000. Jalal is considering cutting his price to \$2.90, which would increase his total revenue to \$1,350 if Salah continues to charge \$3. If Salah's price remains \$3 after Jalal cuts his price, Salah will collect \$500 in revenues. If Salah cuts his price to \$2.90, his total revenues would also rise to \$1,350 if Jalal continues to charge \$3. Jalal will collect \$500 in revenues if he keeps his price at \$3 while Salah lowers his to \$2.90. Jalal and Salah will receive \$900 each in total revenue if they both lower their price to \$2.90. You may find it easier to answer the following questions if you fill in the payoff matrix below.

		Jalal	
		Cut Price	Keep Old Pric
Salah	Cut Price		
	Keep Old Price		

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17. To Jalal, leaving his price at \$3 is a

- A. revenue maximizing strategy.
- B. dominant strategy.
- C. dominated strategy.
- D. profit maximization strategy.

18. To Salah, cutting his price to \$2.90 is a
- A. revenue maximizing strategy.
  - B. dominant strategy.**
  - C. dominated strategy.
  - D. profit maximizing strategy.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #18*

*Learning Objective: 09-03 Recognize and show the effects of dominant strategies.*

*Section: Using Game Theory to Analyze Strategic Decisions*

19. The clear outcome of this game is that
- A. Jalal will cut his price and Salah won't.
  - B. both will cut price to \$2.90.**
  - C. Salah will cut his price and Jalal won't.
  - D. neither Jalal nor Salah will cut their price.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #19*

*Learning Objective: 09-02 Define and find an equilibrium for a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

20. To both Jalal and Salah, \_\_\_\_\_ is a \_\_\_\_\_.
- A. cutting price to \$2.90; disequilibrium.
  - B. leaving price at \$3; Nash equilibrium.
  - C. leaving price at \$3; dominant strategy.
  - D. cutting price to \$2.90; Nash equilibrium.**

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21. In the Nash Equilibrium of a prisoner's dilemma game,

- A. there is no cash left on the table.
- B.** there is unrealized opportunity for both to gain.
- C. total economic surplus is maximized.
- D. both players have equal payoffs.

		Khawlah	
		Strategy A	Strategy B
Salma	Strategy A	Salma: +5, Khawlah: +5	Salma: 0, Khawlah: 0
	Strategy B	Salma: +10, Khawlah: 0	Salma: -5, Khawlah: +10

		Cory	
		Strategy A	Strategy B
Jess	Strategy A	Jess: +5, Cory: +5	Jess: 0, Cory: -5
	Strategy B	Jess: +10, Cory: 0	Jess: -5, Cory: +10

22. Refer to the figure above. In the matrix above,
- A. Salma has a dominant strategy, but Khawlah does not.
  - B. Khawlah has a dominant strategy, but Salma does not.
  - C. both Khawlah and Salma have the same dominant strategy.
  - D. neither Khawlah nor Salma has a dominant strategy.

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*Blooms: Application*

*Frank - Chapter 09 #22*

*Learning Objective: 09-02 Define and find an equilibrium for a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

23. Refer to the figure above. In the matrix above, Khawlah's best response to a decision by Salma to play Strategy A is

- A. non existent.
- B. to also choose Strategy A.
- C. to choose Strategy B.
- D. to choose the cell in which Khawlah's payoff is +10.

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*Blooms: Application*

*Frank - Chapter 09 #23*

*Learning Objective: 09-02 Define and find an equilibrium for a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

24. Refer to the figure above. This game has \_\_\_\_\_ Nash Equilibria.

A. 0

B. 1

C. 2

D. 4

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*Blooms: Application*

*Frank - Chapter 09 #24*

*Learning Objective: 09-02 Define and find an equilibrium for a game.*

*Section: Using Game Theory to Analyze Strategic Decisions*

25. The prisoner's dilemma refers to games in which

A. neither player has a dominant strategy.

B. one player has a dominant strategy and the other does not.

C. both players have a dominant strategy which results in a lower payoff than they would earn if they play their dominated strategies.

D. both players have a dominant strategy which results in the largest possible payoff.

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*Blooms: Knowledge*

*Frank - Chapter 09 #25*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

26. The dilemma in the Prisoner's Dilemma comes from the fact that
- A. the outcome is purely random.
  - B. no strategy is dominant.
  - C. if both players play the dominant strategy they each earn a smaller payoff than had they played the dominated strategy.
  - D. it was originally devised to explain the behavior of prisoners.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #26*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

27. The equilibrium in a prisoner's dilemma is an example of

- A. the low-hanging fruit principle
- B. the comparative advantage principle
- C. the equilibrium principle
- D. the smart for one, dumb for all principle

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*Blooms: Understanding*

*Frank - Chapter 09 #27*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

		<i>Column Cruises</i>	
		<i>Offer Reduced Summer Rates</i>	<i>Keep Rates High in Summer</i>
<i>Row Resorts</i>	<i>Offer Reduced Summer Rates</i>	Row: 50, Column: 50	Row: 500, Column: 10
	<i>Keep Rates High in Summer</i>	Row: 10, Column: 500	Row: 300, Column: 300

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28. Refer to the figure above. If Column Cruises offers reduced rates in the summer, and Row Resorts keeps its rates high in the summer,
- A. Both Row Resorts and Column Cruises will earn 300 in profits.
  - B. Both Row Resorts and Column Cruises will earn 50 in profits.
  - C. Row Resorts will earn profits of 500 and Column Cruises will earn profits of 10.
  - D. Row Resorts will earn profits of 10 and Column Cruises will earn profits of 500.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #28*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

29. Refer to the figure above. If Row Resorts decides to lower its rates for the summer, Column Cruises would make the most profit if it
- A. kept its rates high for the summer.
  - B. also lowered its rates for the summer.
  - C. entered into a cartel with Row Resorts and agreed to jointly reduce rates.
  - D. It doesn't matter which strategy is chosen because Column Cruises will have the same payoff in either case.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #29*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*



30. Refer to the figure above. If Row Resorts decides to keep its rates high for the summer, Column Cruises would get the highest payoff by

- A. also keeping its rates high in the summer.
- B. offering reduced summer rates.
- C. agreeing with Row Resorts to both lower their rates at exactly the same time.
- D. it doesn't matter which he chooses because he will have the same payoff in either case.

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*Blooms: Application*

*Frank - Chapter 09 #30*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

31. Refer to the figure above. The dominant strategy for Row Resorts is \_\_\_\_\_ and for Column Cruises is \_\_\_\_\_.

- A. to keep rates high during the summer; to keep rates high during the summer
- B. to reduce rates during the summer; to reduce rates during the summer
- C. to keep rates high during the summer; to reduce rates during the summer
- D. to reduce rates during the summer; to keep rates high during the summer

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #31*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

32. Refer to the figure above. In this game, when both players use their dominant strategies
- A. profits are maximized.
  - B. Row Resorts earns a higher profit than does Column Cruises.
  - C. both firms do worse than they would if they played their dominated strategies.
  - D. Column Cruises earns a higher profit than does Row Resorts.

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*Blooms: Application*

*Frank - Chapter 09 #32*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

33. For a game involving two players with two possible strategies, which of the following is a requirement for a prisoner's dilemma?

- A. Neither player has a dominant strategy.
- B. The payoff to playing the dominated strategies must be more than the payoff to their dominant strategies.
- C. The payoff to playing the dominant strategies must be more than the payoff to their dominated strategies.
- D. There is no Nash equilibrium.

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*Blooms: Understanding*

*Frank - Chapter 09 #33*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

The table below shows the payoff matrix for players A and B to strategies X and Z.

		Player B	
		X	Z
Player A	X	\$100 for A \$75 for B	\$200 for A \$50 for B
	Z	\$50 for A \$400 for B	\$150 for A \$300 for B

34. For Player A strategy X is \_\_\_\_\_ and for Player B strategy X is \_\_\_\_\_.
- A. dominant; dominated
  - B. dominated; dominant
  - C. dominant; dominant
  - D. dominated; dominated

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*Blooms: Application*

*Frank - Chapter 09 #34*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

35. The Nash equilibrium for this game is
- A. player A choosing strategy Z and player B choosing strategy X.
  - B. player A choosing strategy X and player B choosing strategy Z.
  - C. both players choosing strategy Z.
  - D. both players choosing strategy X.

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*Blooms: Application*

*Frank - Chapter 09 #35*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

36. This game would be classified as a prisoner's dilemma because

- A. the players play their dominant strategies.
- B. playing their dominated strategies would increase both players' payoffs.**
- C. playing dominant strategies gives both player maximum payoff.
- D. both players choose the same strategy.

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*Blooms: Application*

*Frank - Chapter 09 #36*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

The table below shows the payoff matrix in the form of short term profits for two firms, A and B, for two different strategies, investing in new capital or not.

		Firm B	
		Invest	Not Invest
Firm A	Invest	\$20 for A \$20 for B	\$70 for A \$5 for B
	Not Invest	\$5 for A \$70 for B	\$50 for A \$50 for B

*Frank - Chapter 09*

37. For Firm A \_\_\_\_\_ is its dominant strategy, and for Firm B \_\_\_\_\_ is its dominant strategy.

- A. investing; not investing.
- B. not investing; investing
- C. investing; investing**
- D. not investing; not investing

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*Blooms: Application*

*Frank - Chapter 09 #37*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

38. The game is an example of a(n)

- A. cartel.
- B. credible promise.
- C. prisoner's dilemma.
- D. multiple equilibria game.

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*Blooms: Application*

*Frank - Chapter 09 #38*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

39. An industrial spy comes to firm B and claims to know what firm A has decided. How much would this information be worth to firm B?

- A. 0.
- B. \$50 million.
- C. \$30 million.
- D. \$70 million.

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*Blooms: Application*

*Frank - Chapter 09 #39*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

The numbers in each cell are each firm's profits.

		<i>Column Cafe</i>	
		<i>Publish Coupons in Student Paper</i>	<i>No Coupons</i>
<i>Row Restaurant</i>	<i>Publish Coupons in Student Paper</i>	Row: 25, Column: 25	Row: 200, Column: 10
	<i>No Coupons</i>	Row: 10, Column: 200	Row: 120, Column: 120

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40. If Column Cafe offers coupons, and Row Restaurants does not publish coupons,
- A. Row Restaurant will earn \$10 in profits, and Column Cafe will earn 200 in profits.
  - B. Both Row Restaurant and Column Cafe will earn 25 in profits.
  - C. Row Restaurant will earn profits of 200 and Column Cafe will earn profits of 10.
  - D. Both Row Restaurant and Column Cafe will earn profits of 120.

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*Blooms: Application*

*Frank - Chapter 09 #40*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

41. If Row Restaurant decides to publish coupons, Column Cafe would make the most profit if it
- A. did not offer coupons.
  - B. also offered coupons.
  - C. it doesn't matter which strategy is chosen because Column Cafe will have the same payoff in either case.
  - D. offered coupons half of the time and did not offer coupons the rest of the time.

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*Blooms: Application*

*Frank - Chapter 09 #41*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

42. The payoffs of this game are such that

- A. if Row Restaurant expects that Column Cafe will choose its dominant strategy, Row should choose to not follow its own dominant strategy.
- B. profits at both firms would be highest if both firms follow their dominant strategies.
- C. both firms would benefit from a law that made publishing coupons illegal.
- D. an agreement to not publish coupons would be stable because with these profits neither firm has an incentive to defect.

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*Blooms: Application*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

43. An agreement among firms to restrict production with the goal of earning economic profits is a

- A. pure monopoly.
- B. oligopoly.
- C. cartel.
- D. duopoly.

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*Blooms: Application*

*Frank - Chapter 09 #43*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

44. The reason most cartels end or cease to be effective is
- A. enforcement of antitrust legislation.
  - B.** the incentive to cheat on the cartel agreement.
  - C. the dominant member firm buys out the other firms.
  - D. consumers discover the agreement and buy from other firms.

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*Blooms: Application*

*Frank - Chapter 09 #44*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

45. Cartels would be more stable if
- A.** firms that cheat on the agreement could be legally punished.
  - B. firms that cheat on the agreement were better informed about the value of agreement.
  - C. demand for the output was more variable.
  - D. the cartel profit were higher than the profit each individual firm could earn without the cartel.

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*Blooms: Application*

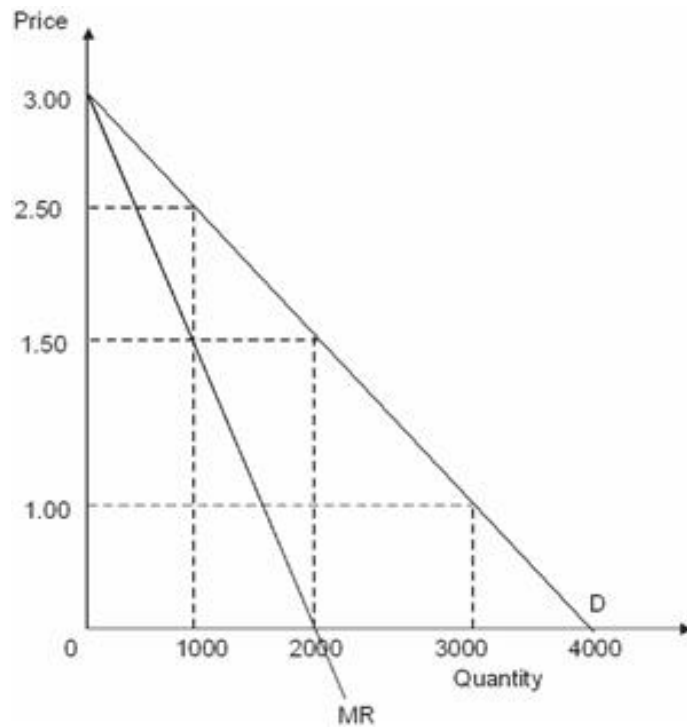
*Frank - Chapter 09 #45*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*



Quick Buck and Pushy Sales produce and sell identical products and face zero marginal and average cost. Below is the market demand curve for the product.



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46. The profit-maximizing quantity for a monopolist with this demand curve is \_\_\_\_\_ units, which the monopolist would sell for \_\_\_\_\_.

- A. 3000; \$1.00
- B. 1000; \$1.50
- C. 2000; \$1.50
- D. 1000; \$2.50

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Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.

Section: The Prisoners Dilemma

47. If Quick Buck and Pushy Sales decide to collude and work as a pure monopolist so that each firm will produce half the quantity demanded by the market, what will be the economic profit for Quick Buck?

- A. \$1000
- B. \$1500**
- C. \$2000
- D. \$3000

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*Blooms: Application*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

48. Suppose Quick Buck cheats on Pushy Sales and reduces its price to \$1.00 each while Pushy Sales continues to comply with the collusive agreement. Quick Buck would then sell \_\_\_\_\_ units and Pushy Sales would sell \_\_\_\_\_ units.

- A. 0; 3000
- B. 1500; 1500
- C. 2000; 1000
- D. 3000; 0**

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*Blooms: Application*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

49. Suppose Quick Buck cheats on Pushy Sales and reduces its price to \$1.00 each while Pushy Sales continues to comply with the collusive agreement. What will be the economic profit for Quick Buck?

- A. \$6000
- B. \$1500
- C. \$2000
- D. \$3000

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*Blooms: Application*

*Frank - Chapter 09 #49*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

50. Suppose Quick Buck cheats on Pushy Sales and reduces its price to \$1.00 and Pushy Sales matches the price cut. What will be the economic profit for Quick Buck?

- A. \$1000
- B. \$1500
- C. \$2000
- D. \$3000

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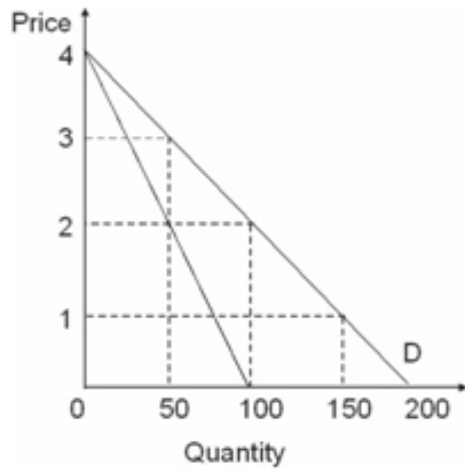
*Blooms: Application*

*Frank - Chapter 09 #50*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

Suppose Firm A and Firm B produce and sell identical product with zero marginal and average cost. Following is the market demand curve for the product.



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51. The profit-maximizing quantity and price for a monopolist with this demand curve are \_\_\_\_\_.

- A. 50 units and \$2
- B. 100 units and \$2**
- C. 50 units and \$3
- D. 100 units and \$1

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*Blooms: Application*

*Frank - Chapter 09 #51*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

52. If Firm A and Firm B decide to collude and work as a pure monopolist such that each firm will produce half the quantity demanded by the market, what will be the economic profit for Firm B?

- A. \$0
- B. \$50
- C. \$100
- D. \$150

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*Blooms: Application*

*Frank - Chapter 09 #52*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

53. Suppose Firm A and Firm B have colluded to work as a pure monopolist, but Firm B cheats on Firm A and reduces its price to \$1.00/ each. Firm B would then sell \_\_\_\_ units and Firm A would sell \_\_\_\_\_ units.

- A. 150; 50
- B. 100; 50
- C. 150; 0
- D. 100; 0

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*Blooms: Application*

*Frank - Chapter 09 #53*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

54. Suppose Firm A and Firm B have colluded to work as a pure monopolist, but Firm B cheats on Firm A and reduces its price to \$1.00/ each. How much profit will Firm B earn?
- A. \$75
  - B. \$100
  - C. \$150
  - D. \$200

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*Blooms: Application*

*Frank - Chapter 09 #54*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

55. Suppose Firm A and Firm B have colluded to work as a pure monopolist, but Firm B cheats on Firm A and reduces its price to \$1.00/ each. If Firm A matches the price cut, what will Firm A's economic profit be?
- A. \$75
  - B. \$100
  - C. \$150
  - D. \$200

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*Blooms: Application*

*Frank - Chapter 09 #55*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

56. OPEC is an example of a(n)

A. monopsony.

B. cartel.

C. monopoly.

D. duopoly.

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*Blooms: Understanding*

*Frank - Chapter 09 #56*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

57. Suppose that market demand for bottled water is low enough that one firm could supply all of the demand. Two firms enter the market and agree to charge a price above the marginal cost of production. We can expect that

A. they will make a considerably large profit.

B. they will work better than a cartel.

C. this agreement will collapse.

D. if one firm does not honor the agreement the other firm will sue for breach of contract.

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*Blooms: Understanding*

*Frank - Chapter 09 #57*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

58. Cigarette manufacturers once relied heavily on TV advertising. According to the textbook, when the U.S. government banned TV ads, the cigarette manufacturers
- A. supported the ban due to their concern over health effects of smoking.
  - B. felt their First Amendment rights were being violated.
  - C. were made worse off because the ban significantly reduced cigarette sales.
  - D. benefited because their advertising prisoner's dilemma was solved.

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*Blooms: Understanding*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

Suppose that the market for bread contains two firms: Bread World (BW) and Breads'R'Us (BRU). The owners of the two firms decide to fix the price of bread. The table shows the total profits the firms will earn if they abide by the price setting agreement or if they cheat on the agreement.

		Bread World	
		Cheat	Abide
Breads'R'US	Cheat	BRU: \$40, BW: \$40	BRU: \$80, BW: \$80
	Abide	BRU: \$0, BW: \$80	BRU: \$45, BW: \$45

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59. For Bread World, \_\_\_\_\_ is its \_\_\_\_\_.
- A. abiding by the agreement; dominant strategy
  - B. cheating on the agreement; dominated strategy
  - C. cheating on the agreement; dominant strategy
  - D. abiding by the agreement; dominant strategy when Breads'R'Us also abides.

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*Blooms: Application*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*



60. For Breads 'R' Us, \_\_\_\_\_ is its \_\_\_\_\_.

- A. abiding by the agreement; dominant strategy
- B. cheating on the agreement; dominated strategy
- C. cheating on the agreement; dominant strategy
- D. abiding by the agreement; dominant strategy when Bread World also abides.

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*Blooms: Application*

*Frank - Chapter 09 #60*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

61. This game has \_\_\_\_\_ with \_\_\_\_\_.

- A. a Nash equilibrium; both firms abiding by the agreement
- B. no equilibrium; no prediction about which strategy will be chosen
- C. a Nash equilibrium; both firms cheating
- D. a Nash equilibrium; Bread World cheating and Breads 'R' Us abiding

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*Blooms: Application*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

62. This game is \_\_\_\_\_ prisoner's dilemma because \_\_\_\_\_.

A. not a; cheating has the highest payoff for both firms.

B. a; if both firms played their dominated strategy profits would be higher than if they play their dominant strategies.

C. a; if both firms played their dominant strategy profits would be higher than if they play their dominated strategies.

D. not a; neither firm has a dominant strategy.

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*Blooms: Application*

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*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

63. Suppose a new element was introduced into the agreement: if one firm cheats today, the other firm will cheat tomorrow but if one firm abides today, the other will abide tomorrow. This strategy pattern is known as

A. the prisoner's dilemma

B. cartel-like behavior

C. tit-for-tat.

D. mutual cooperation

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #63*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

64. Suppose the firms agree to the following: if one firm cheats today, the other firm will cheat tomorrow but if one firm abides today, the other will abide tomorrow. The likely effect of this agreement would be

- A. to increase the probability that both firms would cheat.
- B. to increase the probability that Bread World would cheat.
- C. to increase the probability that both firms would abide.
- D. to increase the probability that Breads 'R' Us would cheat.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #64*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

65. Which of the following core principles applies to the prisoner's dilemma?

- A. No cash on the table.
- B. Smart for one, dumb for all.
- C. Low hanging fruit.
- D. Scarcity.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #65*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

66. According to the text, at a party everyone shouts in order to be heard. If instead everyone spoke at a normal volume people would still be heard. The likely reason that people continue to shout is that the

- A. individual incentive to be heard is smaller than group incentive for everyone to be heard.
- B.** individual incentive to be heard is greater than group incentive for everyone to be heard.
- C. individuals will never do better by speaking more loudly.
- D. prisoner's dilemma does not work in a party.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #66*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

67. A strategy that limits defection in a repeated prisoner's dilemma game is

- A. a Nash equilibrium.
- B.** tit-for-tat.
- C. a cartel.
- D. an ultimatum bargaining game.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #67*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

68. The tit-for-tat strategy only works for prisoner's dilemma games that
- A. have only one Nash equilibrium.
  - B. are played only one time.
  - C. have no Nash equilibrium.
  - D.** are repeated.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #68*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

69. In tit-for-tat, if your partner \_\_\_\_\_ on the first interaction you would then \_\_\_\_\_ in your next interaction with her.
- A. defected; cooperate
  - B.** defected; defect
  - C. cooperates; defect
  - D. defected; refuse to play

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #69*

*Learning Objective: 09-04 Define and explain the Prisoner's Dilemma and how it applies to real-world situations.*

*Section: The Prisoners Dilemma*

70. A decision tree is used when modeling

- A. any type of game.
- B. simultaneous decisions.
- C. a prisoner's dilemma
- D. games in which timing matters.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #70*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

71. A \_\_\_\_ describes all of the possible moves in a game in sequence and the payoffs to each possible combination of moves.

- A. decision tree.
- B. payoff matrix.
- C. game graph.
- D. multi-period game.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #71*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

72. A credible threat is an action that is
- A. possible to carry out.
  - B. legally enforceable.
  - C. in the threatener's self interest to carry out.
  - D. not in the threatener's self interest to carry out.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #72*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

73. A credible promise is an action that is

- A. in the promiser's self interest to keep.
- B. legally enforceable.
- C. made by an honest person.
- D. possible to keep.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #73*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

74. The essential characteristic of a credible threat is

- A. that the threatener has a reputation for carrying out threats.
- B. that the threatener ignores the costs of carrying out the threat.
- C. that the threatener and the threatenees know each other well.
- D. that it is in the threatener's self interest to act on the threat.

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75. The essential characteristic of a credible promise is

- A. it must be spoken with great sincerity.
- B. it must be in the self interest of the promiser to keep the promise.**
- C. that the promise be in writing.
- D. that it is legally enforceable.

Suppose Yasmin and Nadia are trying to decide what to do on a Friday. Yasmin would prefer to see a comedy while Nadia would prefer to see a documentary. One documentary and one comedy are showing at the local cinema. The utilities they receive from seeing the films either together or separately are shown in the payoff matrix. Both Yasmin and Nadia know the information contained in the payoff matrix. They purchase their tickets simultaneously, ignorant of the other's choice.

		Yasmin	
		Comedy	Documentary
Nadia	Comedy	Nadia: 3, Yasmin: 5	Nadia: 1, Yasmin
	Documentary	Nadia: 2, Yasmin: 2	Nadia: 5, Yasmin



76. Yasmin has

- A. no dominant strategy.
- B. a dominant strategy of seeing a comedy.
- C. a dominant strategy of seeing a documentary.
- D. two dominant strategies, depending on Nadia's choice.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #76*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

77. Nadia has

- A. no dominant strategy.
- B. a dominant strategy of seeing a comedy.
- C. a dominant strategy of seeing a documentary.
- D. two dominant strategies, depending on Yasmin's choice.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #77*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

78. This game

- A. is a prisoner's dilemma.
- B. is not a prisoner's dilemma.
- C. is an ultimatum bargaining game.
- D. has no Nash equilibrium.

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79. This game has \_\_\_\_\_ Nash equilibrium.

A. 0.

B. 1.

C. 2.

D. 4.

80. Suppose a timing element is added to the game, and that Yasmin buys a ticket first. While Nadia did not see which ticket Yasmin bought, Nadia does know the values in the payoff matrix and that Yasmin has purchased first. Assuming that Yasmin and Nadia are both self-interested, Nadia can infer

A. that Yasmin bought a ticket for the documentary.

B. that Yasmin did not exploit the first-mover advantage.

C. that Yasmin bought a ticket for the comedy.

D. that Yasmin's threat to buy a ticket for the comedy is not credible.

81. Assuming Nadia is self-interested and believes Yasmin is as well, if Nadia knows that Yasmin bought a ticket first, Nadia will
- A. be indifferent between the two movies.
  - B.** buy a ticket to the comedy.
  - C. flip a coin.
  - D. buy a ticket to the documentary.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #81*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

82. Suppose Yasmin picks first and chooses the comedy and then Nadia choose the comedy. The reason Nadia selected the comedy is that
- A.** Nadia receives a higher payoff choosing comedy when Yasmin has chosen comedy.
  - B. Nadia must establish a reputation for keeping promises even if it is not in Nadia's immediate self-interest to do so.
  - C. selecting the comedy is Nadia's dominant strategy regardless of Yasmin's choice.
  - D. this is a prisoner's dilemma, and so the players do best when choosing the same strategy.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #82*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

83. In sequential games, the player who moves first

- A. always has a first-mover advantage.
- B. has a first-mover advantage only when he or she is able to make a credible threat or promise to choose a dominated strategy.
- C. has a first-mover advantage only when the second mover fails to choose the dominant strategy.
- D. sometimes has an advantage and sometimes has a disadvantage.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #83*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

84. A monopolistically competitive firm

- A. sells products that are perfect substitutes for its competitors' products, so must compete on the basis of location.
- B. sells products that are close substitutes for its competitors' products, so will locate as far away from its competitors as possible.
- C. sometimes distinguishes its output from that of its competitors by locating in a more convenient place.
- D. will be more successful the more similar its output is to its competitors' output.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #84*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

85. If Harold Hotelling's insight about location is extended to other firm decisions, you would expect the output of monopolistically competitive firms to become
- A. more differentiated over time.
  - B. more similar over time, while location, hours and other features become more differentiated over time.
  - C. more similar over time, with location, hours and other features also becoming more similar over time.
  - D. lower in quality over time.

*AACSB: Reflective Thinking Skills*

*Blooms: Analysis*

*Frank - Chapter 09 #85*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

86. Suppose that you have noticed that almost all of the car dealers in your city are located along a 3-block stretch of the same street. A likely reason for this clustering of car dealers is that
- A. the dealers are better able to form a cartel.
  - B. each dealer is attempting to locate closest to the customers.
  - C. there is a social norm in that city that dealers follow in choosing location.
  - D. each dealer sells a different brand of car, so they are not competitors and do not have to be concerned about the other dealers' locations.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #86*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

One thousand adults live in your town, and all of them leave work at 4:30 p.m. everyday and arrive home at exactly 5:00. They all go to bed at 9 p.m. Three telemarketers selling cruises to Sharm El Sheikh, Alpha, Beta, and Gamma, have targeted the town's population. Because the cruises are identical, the first telemarketer to call a willing consumer will get the sale.

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87. The solution to the firms' problem will involve

- A. differentiation by timing
- B. differentiation by geographic location
- C. exploiting perfectly inelastic demand
- D. differentiation by quality

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #87*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

88. Beta's manager has decided that the best time to call is 7:00 because it is exactly halfway between 5:00 p.m. and bedtime.

- A. Beta is certain to make the most sales because all customers are 2 hours or less away from a phone call.
- B. Alpha and Gamma will have an incentive to also make calls at 7:00, causing clustering at the halfway point in the evening.
- C. Alpha and Gamma will divide up the rest of the market, with one choosing to call at 6:00 and the other at 8:00.
- D. Beta's manager did not choose wisely.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #88*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

89. Calls made by telemarketers at each firm will tend to

- A. be evenly distributed throughout the evening.
- B.** cluster near 5:00 p.m.
- C. cluster near 6:00 p.m.
- D. cluster near 7:00 p.m.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #89*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

90. The last time you went on a road trip, you noticed that there were several fast food outlets clustered near some highway exits, but none at the others. Now that you are familiar with Hotelling's model you know that the reason for this is

- A. zoning laws.
- B.** firms vying for a favorable location.
- C. failure by the firms to correctly distribute themselves.
- D. the existence of fast food cartels.

*AACSB: Analytical Skills*

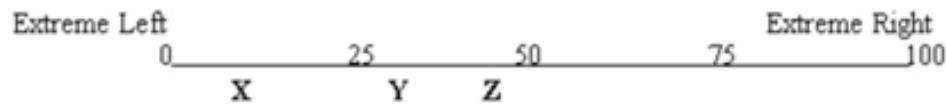
*Blooms: Understanding*

*Frank - Chapter 09 #90*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

Hotelling's model has been used to describe differentiation in the political "market." Suppose that 100 voters are evenly arrayed between the extreme left and the extreme right on the political spectrum, and that all voters vote, and they always vote for the candidate closest to them on this spectrum. The numbers on this spectrum represent the number of voters lying to the left of the number. So, at the midpoint, fifty voters lie to the left and fifty to the right. At the extreme right end, all 100 voters lie to the left.



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91. If Candidate X is running for office against Candidate Z, the result will be that
- A. all voters to the left of Z will vote for X, and all voters to the right of Z will vote for Z.
  - B. all voters who would have voted for Candidate Y will vote for Candidate X.
  - C. Candidate Z will certainly win.
  - D. Candidate X might win, but the result is uncertain.

AACSB: Reflective Thinking Skills

Blooms: Analysis

Frank - Chapter 09 #91

Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.

Section: Games in Which Timing Matters

92. Suppose Candidate X is running against Candidate Y. If Candidate Z enters the race,
- A. approximately half of the voters who were going to vote for X will now vote for Z.
  - B. X will certainly win because Y and Z compete for the same voters.
  - C. all of the voters who were going to vote for Y will now vote for Z.
  - D. most of the voters who were going to vote for Y will now vote for Z.

AACSB: Reflective Thinking Skills

Blooms: Analysis

Frank - Chapter 09 #92

Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.



93. If Candidate X is running against Candidate Z, by moving to the right Candidate X would
- A. lose some votes from the far left but gain approximately the same number of votes from Z.
  - B.** not lose any votes from the left and gain some from Z.
  - C. force Z to move farther to the right in order to keep the same number of votes.
  - D. win the election if the move placed X anywhere to the right of the 25 mark on the spectrum.

*AACSB: Reflective Thinking Skills*

*Blooms: Analysis*

*Frank - Chapter 09 #93*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

94. If Candidate Y is running against Candidate Z,
- A. Candidate Y will have an incentive to move to the left, and Candidate Z will have an incentive to move to the right.
  - B. Both candidates will have an incentive to move to the left.
  - C.** Both candidates will have an incentive to move toward each other's position.
  - D. Neither candidate has any incentive to move.

*AACSB: Reflective Thinking Skills*

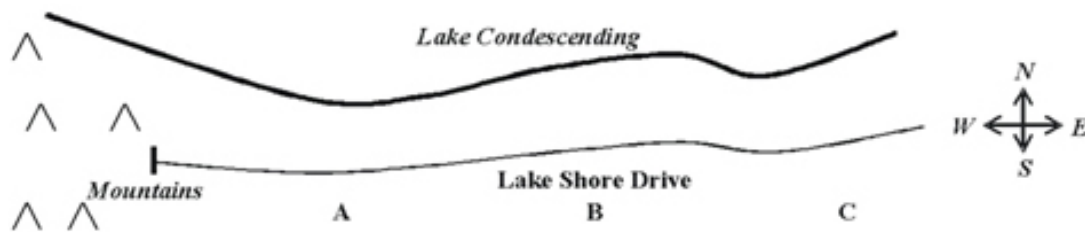
*Blooms: Analysis*

*Frank - Chapter 09 #94*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

Miniville is an isolated town located on the southern shore of Lake Condensing, a very large lake. The western edge of Miniville is adjacent to impassable mountains and there are no towns or businesses for many miles to the east. The 300 residents of Miniville are evenly distributed along 3 miles of shoreline on the lake, east of the mountains. Lake Shore Drive, the only street in town, provides access to Miniville's homes and businesses. All residents live between the lake and the street, while businesses may locate on the other side of the street. Lake Shore Drive is 3 miles long, and the points labeled A, B, and C are 1, 2, and 3 miles from the western end of Lake Shore Drive respectively. All residents of Miniville shop at the store located closest to their homes.



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95. \_\_\_\_\_ residents of Miniville live west of point B and \_\_\_\_\_ live east of point A.
- A. 100; 200
  - B. 150; 150
  - C. 200; 200**
  - D. 200; 100

AACSB: Analytical Skills

Blooms: Application

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Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.

Section: Games in Which Timing Matters

96. Because all residents of Miniville shop at the store located closest to their homes, the optimal location for the first store to open in Miniville is
- A. at the western end of Lake Shore Drive
  - B.** there is no single optimal location for the first store.
  - C. Point A.
  - D. Point C.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #96*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

97. If one store is located at A and the other store is located at B,

- A.** all of the people living between A and the mountains will shop at the store at A.
- B. some, but not all, of the people living east of B will shop at the store at B.
- C. exactly half of the people living west of B will shop at the store at B.
- D. exactly half of the people living east of B will shop at the store at B.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #97*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

98. If one store is located at A and the other store is located at C,
- A. 150 people will shop at each store.
  - B. 200 people will shop at the store at A, and 100 people will shop at the store at C.
  - C. 100 people will shop at the store at A, and 200 people will shop at the store at C.
  - D. 100 people will certainly shop at each store, but where the other 100 will shop is indeterminant.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #98*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

99. If the first store to open in Miniville is located at A, to maximize the number of customers it attracts, the next store to open should locate
- A. just west of A
  - B. at B
  - C. at C
  - D. just east of A

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #99*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

100. If three stores were to open sequentially, you would expect that those stores would be located
- A. at points A, B, and C.
  - B. halfway between the mountains and A, halfway between A and B, and halfway between B and C.
  - C. in a cluster, near point B.
  - D. in a cluster, near the location chosen by the first store to locate.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #100*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

101. According to the text, the observation that many New York – Los Angeles flights leave exactly on the hour is due to
- A. air traffic controllers' preferences.
  - B. clustering by competing firms to attract customers.
  - C. cartel-like behavior.
  - D. an effort to make flight times easier to remember for passengers.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #101*

*Learning Objective: 09-05 Show how games in which timing matters differ from games in which it does not.*

*Section: Games in Which Timing Matters*

102. When players cannot achieve their goals because they are unable to make credible threats or promises, the situation is called
- A. the prisoner's dilemma.
  - B. a Nash equilibrium.
  - C. a failure of dominant strategies.
  - D. a commitment problem.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #102*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

103. A commitment problem exists when
- A. players cannot make credible threats or promises.
  - B. players cannot make threats.
  - C. there is a prisoner's dilemma.
  - D. players cannot make promises.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #103*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

104. An action that makes otherwise empty threats or promises credible is called a(n)

- A. Nash equilibrium.
- B. commitment device.**
- C. strategic device.
- D. dominant strategy.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #104*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

105. According to the textbook, one possible way of solving the commitment problem in the kidnapping game is for the victim to

- A. give the kidnapper a blank check.
- B. promise never to reveal the kidnapper's identity.
- C. offer to cut off one finger to show his sincerity.
- D. do something illegal and allow the kidnapper to record it.**

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #105*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

106. According to the textbook, owners of restaurants have solved the \_\_\_\_\_ their wait staff by paying low wages and encouraging tipping by customers.

- A. credible threats by
- B. commitment problem with**
- C. credible promises by
- D. salary problems of

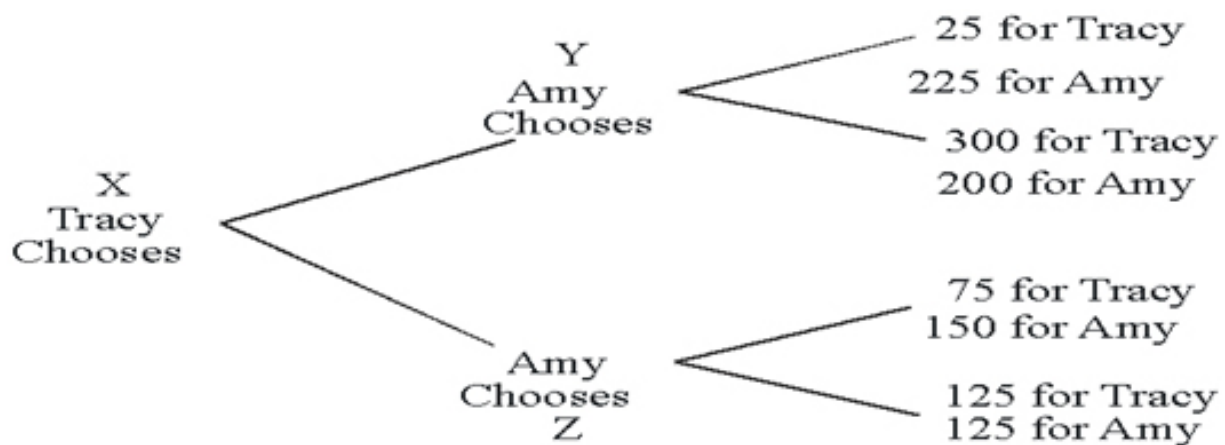
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Blooms: Knowledge

Frank - Chapter 09 #106

Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.

Section: Commitment Problems



In the above decision tree, Yusra picks first and Amal picks second. Yusra knows Amal's payoffs to each choice and Amal knows Yusra's payoffs.

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107. Based solely on the information in this decision tree, we can predict that

- A. Yusra will always make the decision to give Amal the choice at Y, and Amal will then choose the lower branch.
- B. Amal will make a credible promise to pick the lower branch if given the choice at Y and Yusra will make the decision to give Amal the choice at Y.
- C. Yusra will always make the decision to give Amal the choice at Z and Amal will then choose the upper branch.
- D. Yusra will always make the decision to give Amal the choice at Z and Amal will then choose the lower branch.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #107*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

108. Given the information in this decision tree, the equilibrium outcome of this game will be for Amal to choose the \_\_\_\_\_ after Yusra has made the decision that gives Amal the choice at \_\_\_\_\_.

- A. lower branch; Y
- B. upper branch; Y
- C. lower branch; Z
- D. upper branch; Z

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #108*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

109. If the payoffs at the end of each branch are as shown, the outcome of this game will be

- A. Yusra and Amal both get 125.
- B.** Yusra gets 75 and Amal gets 150
- C. Yusra gets 300 and Amal gets 200
- D. Yusra gets 25 and Amal gets 225

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #109*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

110. If before Yusra chose, Amal could make a credible commitment to choose either the top or bottom branch when her turn came, Yusra would make the decision to give Amal the choice at \_\_\_\_\_ and Amal would choose the \_\_\_\_\_.

- A. Z; top branch
- B. Z; lower branch
- C.** Y; lower branch
- D. Y; top branch

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #110*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

111. If before Yusra chose, Amal could make a credible commitment to choose either the top or bottom branch when her turn came, Yusra would get a payoff of \_\_\_\_\_ and Amal would get a payoff of \_\_\_\_\_.

A. 25; 225

**B. 300; 200**

C. 75; 150

D. 125; 125

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #111*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

112. The equilibrium to the game results in \_\_\_\_\_ for Amal and Yusra relative to what they would receive if they could solve their \_\_\_\_\_.

A. lower payoffs; prisoner's dilemma.

B. higher payoffs; commitment problem

C. lower payoffs; credible threat.

**D. lower payoffs; commitment problem.**

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #112*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

113. Which of the following is not a commitment device used to overcome a commitment problem?

- A. A non-refundable advance payment to reserve a room at a resort.
- B. A manufacturer's 2-year agreement to fix, at no cost to you, anything that breaks on your computer.
- C. An agreement that provides for a large penalty in the event a business partner reveals trade secrets to a competitor.
- D. High fines for illegal parking on campus.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #113*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

114. One reason that commitment problems arise is that

- A. people do not always correctly identify their own dominant strategy.
- B. players cannot trust that other players will avoid playing their dominated strategy.
- C. following through on a threat or promise often violates the cost-benefit principle.
- D. commitments cannot be purchased.

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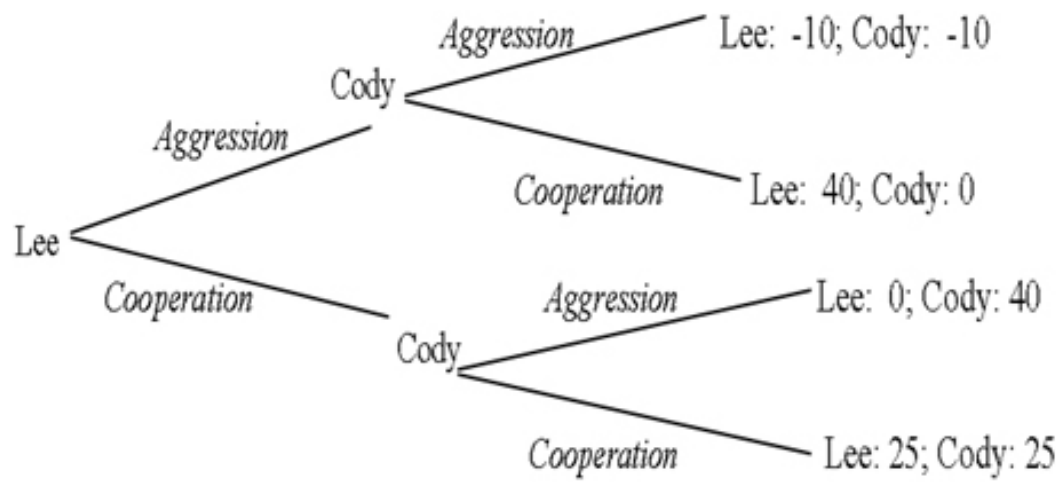
*Blooms: Understanding*

*Frank - Chapter 09 #114*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

Lutfi and Kassim are competitors. Each is considering whether to take aggressive action against the other or to cooperate. Kassim can observe Lutfi's decision. Their decision tree can be diagrammed as follows:



*Frank - Chapter 09*

115. If Lutfi is aggressive, Kassim will respond with \_\_\_\_\_ and if Lutfi cooperates, Kassim will respond with \_\_\_\_\_.

- A. Aggression; Cooperation
- B. Aggression; Aggression
- C. Cooperation; Aggression
- D. Cooperation; Cooperation

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #115*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

116. Suppose Kassim tells Lutfi that any aggression on Lutfi's part will be met with aggression, but that if Lutfi cooperates, Kassim will respond cooperatively. Kassim's statement is
- A. a commitment device.
  - B. a non-credible threat and promise.**
  - C. a description of the two equilibria for this game.
  - D. a credible threat and promise.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #116*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

117. The equilibrium for this game is for Lutfi to choose \_\_\_\_\_ and for Kassim to be \_\_\_\_\_ in response.
- A. aggression; cooperative**
  - B. aggression; aggressive
  - C. cooperation; cooperative
  - D. cooperation; aggressive

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #117*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

118. Suppose Lutfi and Kassim enter into a binding non-aggression agreement. As part of that agreement they negotiate a fine that Kassim would have to pay to Lutfi if Kassim responded to Lutfi's passive choice with aggression. For that fine to be effective, it must be

- A. less than 15
- B. greater than 15**
- C. equal to 40
- D. equal to 25.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #118*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

Mexico and the members of OPEC produce crude oil. Realizing that it would be in their best interests to form an agreement on production goals, a meeting is arranged and an informal, verbal agreement is reached. If both Mexico and OPEC stick to the agreement OPEC will earn profits of \$200 million and Mexico will earn profits of \$100 million. If both Mexico and OPEC cheat then OPEC will earn \$175 million and Mexico will earn \$80 million. If only OPEC cheats, then OPEC earns \$185 million and Mexico \$60 million. If only Mexico cheats, then Mexico earns \$110 million and OPEC \$150 million.

		OPEC	
		Cheat	Abide
Mexico	Cheat		
	Abide		

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119. To Mexico, the payoff to cheating is either

- A. \$60 million or \$100 million.
- B. \$150 million or \$200 million.
- C. \$80 million or \$110 million.
- D. \$100 million or \$110 million.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #119*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

120. To OPEC, the payoff to not cheating is either

- A. \$150 million or \$200 million.
- B. \$200 million or \$185 million.
- C. \$60 million or \$100 million.
- D. \$175 million or \$185 million

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #120*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

121. Mexico finds that it has

- A. no dominant strategy.
- B. a dominant strategy of not cheating.
- C. no dominated strategy.
- D. a dominant strategy of cheating.

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122. OPEC finds that it has
- A. a dominant strategy of cheating.
  - B. a dominated strategy of cheating.
  - C. a dominant strategy of not cheating.
  - D. no dominant strategy.

123. The outcome of this game is
- A. a Nash equilibrium with both Mexico and OPEC not cheating.
  - B. a Nash equilibrium with both Mexico and OPEC cheating.
  - C. a Nash equilibrium with Mexico cheating and OPEC not cheating.
  - D. a Nash equilibrium with Mexico not cheating and OPEC cheating.

124. This game would \_\_\_\_\_ because \_\_\_\_\_.

- A. be a prisoner's dilemma; not cheating is better for both
- B. not be a prisoner's dilemma; cheating is better for both
- C. be a prisoner's dilemma; cheating is better for both
- D.** not be a prisoner's dilemma; OPEC does not have a dominant strategy

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #124*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

125. Suppose Mexico picks its strategy first and OPEC knows what they choose. OPEC told Mexico that in the event Mexico cheats on the agreement, OPEC will cheat as well but if Mexico does not cheat, neither will OPEC. This is an example of a(n) \_\_\_\_\_ and the outcome is that \_\_\_\_\_

- A. commitment problem; neither will cheat.
- B.** credible threat and promise; neither will cheat.
- C. prisoners dilemma; both will cheat.
- D. not credible threat or promise; both will cheat.

*AACSB: Analytical Skills*

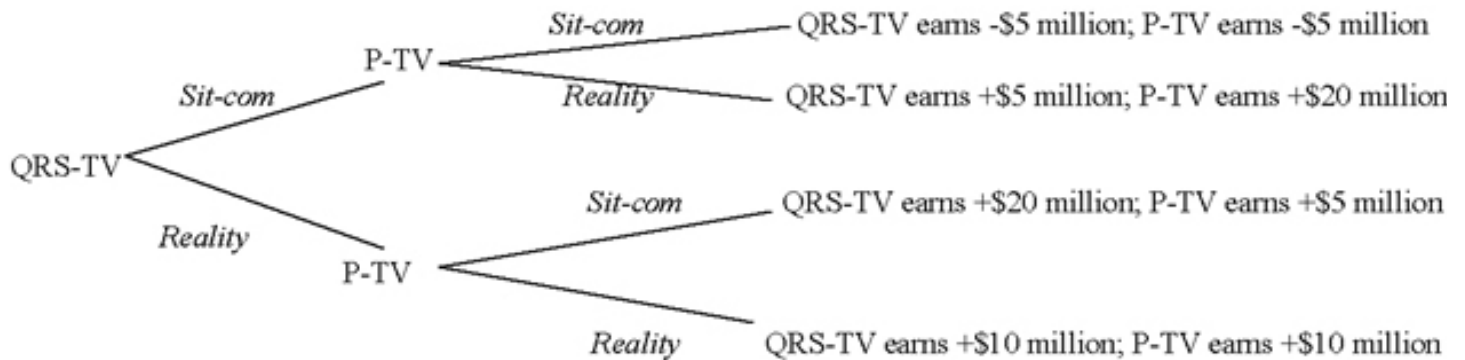
*Blooms: Application*

*Frank - Chapter 09 #125*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

P-TV and QRS-TV are planning their fall line-up. Suppose that sit-coms are more popular than reality shows, and so generate more advertising revenue than do reality shows, but they are more expensive to produce since real actors need to be hired. In the following decision tree, QRS-TV announces its decision first and P-TV observes that choice before it decides whether to air a sit-com in the same time slot or a reality show. Both stations know all of the information shown in this diagram when they make their decisions.



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126. Given the information in this decision tree, if QRS-TV announces that it will air a sit-com, it can expect to
- A. lose \$5 million
  - B. earn \$5 million**
  - C. earn \$10 million
  - D. earn \$29 million

AACSB: Analytical Skills

Blooms: Application

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Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.

Section: Commitment Problems

127. Given the information in this decision tree, if QRS-TV announces that it will air a reality show, it can expect to
- A. lose \$5 million
  - B. earn \$5 million
  - C. earn \$10 million
  - D. earn \$20 million

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #127*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

128. P-TV will air a sit-com
- A. only if QRS-TV is also airing a sit-com.
  - B. only if QRS-TV is airing a reality show.
  - C. always.
  - D. never.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #128*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

129. Given the information in this decision tree, this season programming in this time slot on QRS-TV and P-TV will be

- A. only reality shows.
- B. only sit-coms.
- C. a sit-com on QRS-TV and a reality show on P-TV.
- D. a reality show on QRS-TV and a sit-com on P-TV.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #129*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

130. Suppose QRS-TV enters into an agreement with P-TV that gives QRS-TV the exclusive right to air a reality show during this time slot. QRS-TV would have to pay P-TV \_\_\_\_\_ in order to persuade P-TV to enter into this agreement.

- A. more than \$5 million
- B. nothing
- C. at least \$10 million
- D. more than zero, but less than \$5 million

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #130*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

131. Suppose QRS-TV enters into an agreement with P-TV that gives QRS-TV the exclusive right to air a reality show during this time slot. QRS-TV would be willing to pay P-TV \_\_\_\_\_ in order to persuade P-TV to enter into this agreement.

- A. no more than \$10 million
- B. nothing
- C. at least \$10 million
- D. more than zero, but less than \$5 million

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #131*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: Commitment Problems*

132. If someone informs a sales clerk that he was given \$20 in change when he was only owed \$10, one can conclude,

- A. the individual is irrational.
- B. preferences to be honest altered his motivation and choice.
- C. the individual is wealthy.
- D. somebody else must have witnessed the error.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #132*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

133. Relative to a world in which some people are motivated by nonmaterial incentives, if all people were motivated solely by financial incentives
- A. transactions in the business world would be the same, but personal interactions would not.
  - B. economic efficiency would be achieved more often.
  - C. commitment devices would not be necessary, because there would be no commitment problems.
  - D. both business transactions and personal interactions would be different.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #133*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

134. According to the textbook, in the game where player A divides a sum of money and then player B accepts or rejects the division, the most common distribution for A to propose is
- A. 99% for A and 1% for B.
  - B. 80% for A and 20% for B.
  - C. 50% for A and 50% for B.
  - D. 70% for A and 30% for B.

*AACSB: Analytical Skills*

*Blooms: Knowledge*

*Frank - Chapter 09 #134*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

135. Only one of the following behaviors is fully consistent with the assumption of narrowly self-interested individuals. Which one?
- A. Leaving a tip at an out of town restaurant.
  - B. Getting the lowest price on a new car.
  - C. Taking only one newspaper out of the machine.
  - D. Returning a lost wallet full of cash to the owner.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #135*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

136. A purely self-interested diner is more likely to tip
- A. never.
  - B. only when dining in a very up-scale restaurant.
  - C. only when dining in a restaurant at which he often eats.
  - D. always, to assure good service.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #136*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*



137. The solution to a commitment problem

- A. must be a change in the material incentives.
- B. is never a change in the psychological incentives.
- C. must be a change in the psychological incentives.
- D. can be a change in the material incentives, the psychological incentives or both.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #137*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

138. Emotions like guilt and sympathy

- A. are irrelevant to economic decision-making.
- B. reduce the likelihood that a transaction will maximize total economic surplus.
- C. can solve commitment problems, increasing players' payoffs.
- D. can solve commitment problems, but generally reduce players' payoffs.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #138*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

Suppose there are two small island countries: Avarice, which is populated by people who are completely self-interested and Altruism, which is populated by people who have adopted social norms of generosity and cooperation.

*Frank - Chapter 09*

139. Commitment problems will be

- A. largely avoided in Avarice, but prevalent in Altruism.
- B.** largely avoided in Altruism, but prevalent in Avarice.
- C. prevalent on both islands.
- D. largely avoided on both islands.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #139*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

140. If two residents of Avarice play the Prisoner's Dilemma game, they are likely to

- A. never reach the Nash Equilibrium
- B.** reach the Nash Equilibrium more often than would residents of Altruism.
- C. reach the Nash Equilibrium less often than would residents of Altruism.
- D. play their dominated strategies more often than would residents of Altruism.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #140*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

141. Suppose residents of each island often play prisoner's dilemma games, always matched with a person from the same island, but not a person who they know or will play with again. If the same number of games is played, you would expect that

- A. Avarice players will have higher average payoffs than Altruism players.
- B. players on both islands will quickly converge to playing the Nash Equilibrium all of the time.
- C. Altruism players will have higher average payoffs than Avarice players.
- D. players on both islands will quickly converge to the higher-payoff non Nash Equilibrium result.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #141*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

142. The use of psychological incentives to solve commitment problems would be least effective in games played

- A. repeatedly between strangers.
- B. once between family members.
- C. repeatedly between family members.
- D. once between strangers.

*AACSB: Analytical Skills*

*Blooms: Understanding*

*Frank - Chapter 09 #142*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

143. When parents encourage their children to be honest and punish them when they are not is an example of

- A. child abuse.
- B. using material incentives to solve commitment problems.
- C. old fashioned parenting.
- D. using preferences to solve commitment problems.

*AACSB: Analytical Skills*

*Blooms: Application*

*Frank - Chapter 09 #143*

*Learning Objective: 09-06 Discuss commitment problems and explain how altering preferences can solve commitment problems.*

*Section: The Strategic Role of Preferences*

# Chapter 09 Testbank Summary

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