

Oligopolies MC Practice

Which of the following describes the situation where competitors collude and agree to set prices?

- A. Collusive competition
- B. Excess capacity
- C. **Cartel model**
- D. Kinked demand curve model
- E. Game theory

Reason: A cartel is a colluding oligopoly.

Which of the following best describes a dominant strategy in a game with two players?

- A. the strategy where the sum of all payoffs is highest
- B. the strategy that gives the highest payoff, given the other player has chosen a specific strategy.
- C. **the strategy a player should choose regardless of the other player's strategy**
- D. the strategy that a player should choose, given the other player has chosen a specific strategy.
- E. the strategy that is never the best choice for a player, regardless of the other player's strategy

Reason: Dominant strategies have the highest payoff no matter what the other player does. If a player has a dominant strategy, that player should always play that strategy.

Which of the following is a key difference between monopolistic competition and oligopoly?

- A. Monopolistic competition is allocatively inefficient but oligopoly is allocatively efficient.
- B. Monopolistic competition produces identical goods but oligopoly produces slightly differentiated goods.
- C. Monopolistic competition is illegal, but oligopolies are legal.
- D. **Monopolistic competition has more firms than oligopoly.**
- E. Monopolistic competition has an opportunity for long-run profits, but oligopoly does not.

Reason: Monopolistic competition is a market structure where there are *many* firms selling products that are similar, but not identical. Oligopoly is a market structure where there are few firms (or a few dominant firms), and the behavior of one firm affects the outcomes of other firms.

What type of industry is most associated with price leadership and cartels?

- A. Monopolistic competition
- B. Monopoly
- C. Perfect competition
- D. Monopsony
- E. **Oligopoly**

Reason: Price leadership is when a firm sets its price and other firms follow that firm's lead and set a similar price. Cartels are when firms act together to try to get a better outcome. Both are examples of the interdependency and strategic behavior that we tend to see in an oligopoly.

		Firm 2	
		High	Low
Firm 1	High	\$100, \$50	\$50, \$90
	Low	\$80, \$40	\$20, \$10

The game theory matrix shows the profit for two firms deciding whether to price high or price low. Firm 1 is the blue numbers on the left. Which of the following is correct?

- A. Firm 1's dominant strategy is to price low
- B. Firm 1's dominant strategy is to price high
- C. Firm 2's dominant strategy is to price high
- D. Firm 2's dominant strategy is to price low
- E. Both firms do not have a dominant strategy

Reason: Firm 1 should always price high and has no incentive to price low. Firm 2 does not have a dominate strategy. If both firms have this information and choose simultaneously, Firm 1 will price high and Firm 2 will price low.

Prairie Glen and Mountain View sell flavored fizzy water in a market where they are the only two sellers. Each is considering what actions to undertake in the following week. The payoff matrix shown here shows each firm's daily profits for each combination of actions.

		Mountain View	
		advertise	don't advertise
Prairie Glen	price high	\$1000 , \$1000	\$2500 , \$500
	price low	\$500 , \$2500	\$2000 , \$2000

Which of the following best describes each firm's dominant strategy?

- A. Prairie Glen's dominant strategy is to price high, Mountain View's dominant strategy is don't advertise
- B. Prairie Glen's dominant strategy is to price low, Mountain View's dominant strategy is don't advertise.
- C. Prairie Glen's doesn't have a dominant strategy; Mountain view doesn't have a dominant strategy
- D. Prairie Glen's dominant strategy is to price high; Mountain view's dominant strategy is to advertise.
- E. Prairie Glen's dominant strategy is to price low; Mountain view doesn't have a dominant strategy

Reason: If Mountain View chooses to advertise, Prairie Glen's best response is to price high. If Mountain View chooses to don't advertise, Prairie Glen's best response is to price low. Prairie Glen's best strategy is the same, no matter what Mountain View does, Prairie Glen has a dominant strategy. Similarly, Mountain View's highest payoffs come when it plays the strategy advertise, no matter what Prairie Glen chooses to do.

The game matrix below shows the payoffs associated with the strategies of two players. Assume that the objective of each player is to earn the largest payoff.

		Joseph	
		go left	go right
Asil	go left	\$4 , \$5	\$7 , \$9
	go right	\$10 , \$6	\$8 , \$3

What is Joseph's payoff if he goes left when Asil goes left?

- A. \$6
- B. \$4
- C. \$7
- D. \$5

E. \$3

Reason: The top and left corner of the payoff matrix represents the payoffs when both players play the strategy "go left". The first entry in a normal form game is always the payoff to the left side player (Asil) and the second entry is the payoff to the player on top (Joseph):

The market for food trucks in Hamsterville is a duopoly. Both firms are planning their menus for the year: Mike's Munchies must choose between serving loaded tater tots and fried chicken, and Frida's foods must choose between serving stuffed churros and fajita fries.

The profits for each food truck in different scenarios are given in the payoff matrix shown here, *given in thousands of dollars*. The first entry represents Mike's payoff and the second entry represents Frida's payoff. The two trucks have agreed to collude.

		Frida's Foods	
		stuffed churros	fajita fries
Mike's Munchies	loaded tots	\$80, \$40	\$90, \$50
	fried chicken	\$70, \$80	\$40, \$60

What happens to industry profits if Mike violates the agreement and chooses his best response, but Frida does not?

- A. Industry profits are unchanged
- B. Industry profits decrease by \$10,000
- C. Industry profits increase by \$10,000
- D. Industry profits decrease by \$50,000
- E. Industry profits fall by \$30,000**

Reason: The cartel outcome is achieved when Mike's Munchies chooses fried chicken and Frida's Foods chooses stuffed churros, and industry profits are \$150,000 when they collude. If Mike defects and chooses loaded tots, industry profits fall to \$120,000

$$\$150,000 - \$120,000 = \$30,000$$

Paulo's Delights and Marisol's Nibbles are two food trucks that sell lunches in a busy downtown area. The first entry in each cell in this payoff matrix shows the profits for Marisol's Nibbles, and the second entry in each cell shows the profits for Paulo's Delights. Assume that the firms cannot cooperate.

		Paulo's Delights	
		maintain price	decrease price
Marisol's Nibbles	maintain price	\$2000 , \$1000	\$4000 , \$3000
	decrease price	\$500 , \$2000	\$2000 , \$5500

What are industry profits in the Nash equilibrium?

- A. \$3000
- B. \$2500
- C. \$7500
- D. \$7000**
- E. \$1000

Saoirse and Shae are playing a game and their two strategies are stand up and sit down. The payoffs they get from their strategies (measured in points) are given in the payoff matrix shown here. The first entry represents Saoirse's payoff and the second entry represents Shae's payoff.

		Shae	
		stand	sit
Saoirse	stand	7 , 20	40 , 10
	sit	10 , 3	20 , 20

What is the Nash equilibrium for this game?

- A. There is no Nash equilibrium in this game
- B. Saoirse sits, Shae sits
- C. Saoirse sits, Shae stands
- D. Saoirse stands, Shae stands
- E. Saoirse stands, Shae sits

Reason: If we use the process of analyzing what each player does under different circumstances and underlining the payoff a player gets from the best action, we can see that there is no cell in which both payoffs are underlined. That means that there are no Nash equilibria in this game:

		Shae	
		stand	sit
Saoirse	stand	7 , <u>20</u>	<u>40</u> , 10
	sit	<u>10</u> , 3	20 , <u>20</u>