

# Oligopoly

1. For a duopoly with the following demand curve ( $P = 100 - 10Q$ ) and the assumption that the marginal cost of production is zero and that output can be set in half of one unit,

Q	P	Total.Income
0	100	0
1	90	90
2	80	160
3	70	210
4	60	240
5	50	250
6	40	240
7	30	210
8	20	160
9	10	90
10	0	0

- Explain each firm's profit-maximising position?
  - Calculate total output, total profit and the profit for each firm?
  - What is the profit maximising position if there is *collusion*?
  - Explain the term *Nash Equilibrium* identify the Nash Equilibrium for this example,
2. How does globalisation affect oligopolistic industries like cars?
  3. Describe the *kinked demand curve*. What are the consequences of this demand curve for firms?
  4. Looking at figure 16.7 in the textbook, explain why there is no equilibrium at the point where each firm charges 20 pounds for the product.

5. In the context of Game Theory, give an example of the following
- *Dominant Strategy*
  - *Credible Threat*
  - *Commitment*
6. Is the market for Christmas trees *Contestable*? Explain your answer.
7. Draw the decision tree for a monopolistic firm with a strategic choice over whether to advertise its detergent. If the firm embarks on a multi-year advertising campaign, it adds to the cost but does not increase the overall size of the market for detergent. However, if other firms enter the market, the advertising will take market share from the newcomers. Profits are 5 million with no competition or advertising, profits will be 2.5 million each if there are two firms in the industry with no advertising. The advertising campaign will reduce monopoly profits to 3 million without competition. If another firm tries to enter the market, the advertising will ensure that it is able to take 90% of the market, make a profit of 1 million after advertising expenses and reduce the profit of the potential entrant to zero.
- Use the decision-tree to help explain why a monopolist may advertise.