UNIVERSITY OF ESSEX
DEPARTMENT OF ECONOMICS

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EC111 Introduction to Economics: Class Exercises 7 (Week 9)

1) There are two firms in an industry producing a homogeneous product. They both have constant average and marginal costs: AC = MC = 30. Industry demand is given by Q = 270 − P.

   a) Suppose the two firms collude to maximise joint profits (and share the market equally). How much will each firm produce?
   b) Suppose these two firms are Bertrand duopolists. What would industry output and profit be in equilibrium?
   c) Suppose that the two firms are Cournot duopolists. Using the reaction functions of the two firms, calculate industry output and profit.

2) An incumbent firm wishes to deter entry into the industry by threatening to inflict losses on any firm that enters. Under what circumstances will the threat be credible?

Key terms to revise and understand:

Monopolistic competition
Cournot/Nash equilibrium
Prisoners' dilemma
Bertrand equilibrium
Entry deterrence
Decision tree