Oligopoly Market Calculation Example

The market for domestic paints is supplied by two large oligopolistic suppliers. One of the suppliers faces a composite demand curve made up of two components;

\[ p = 2000 - 0.33x \quad \text{and} \quad p = 1600 - 0.17x \]

where \( p \) is the price (£ kg\(^{-1}\)) and \( x \) is the quantity supplied (kg week\(^{-1}\))

(a) Calculate the price and quantity of the chemical supplied in order to maximise profit, assuming that the marginal cost curve intersects the composite marginal revenue curve within the disjuncture.

(b) Calculate the magnitude of the disjuncture in the composite marginal revenue curve.