

5.2.1 Market structures, concentration and monopoly (cut of 5.2)

Name: _____ Class: _____ Date: _____

Total: 26 marks

KEY WORDS Nash equilibrium • concentration ratio

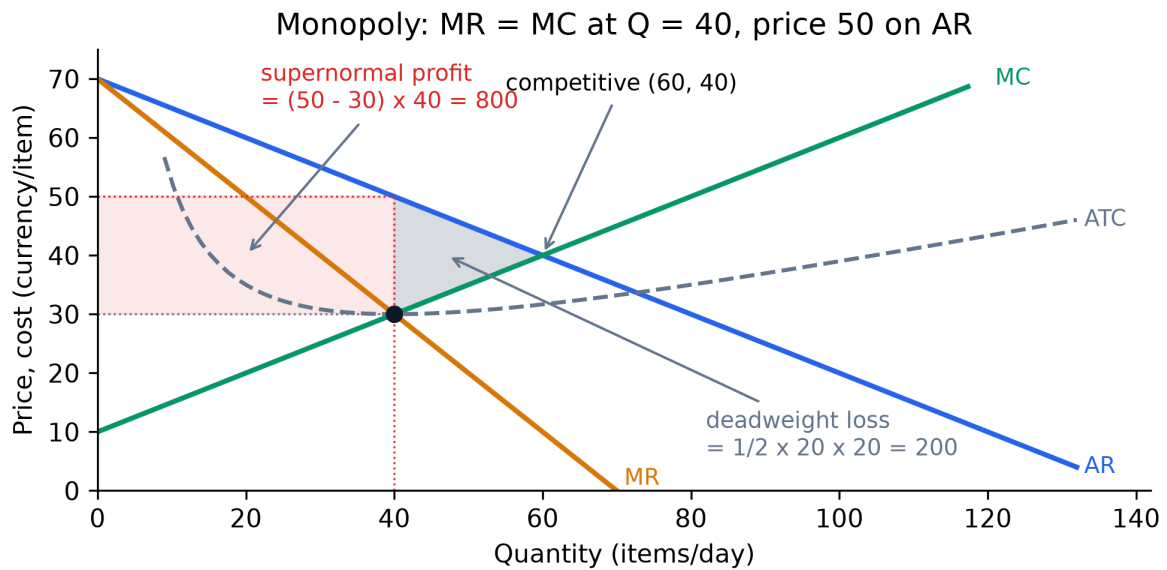
Market structures, concentration and monopoly

Objective

Apply the efficiency concepts, calculate concentration ratios, and analyse perfect competition, oligopoly game theory and monopoly profit maximisation with the shared model (spec 3.3.3 rows 1–6, a narrower cut of subtopic 5.2).

1 Key knowledge and worked examples

Structures. Allocative efficiency: $P = MC$; productive: output at min ATC; dynamic: innovation funded by profit; X-inefficiency: waste above the cost floor. Perfect competition: price takers, long-run $P = \min ATC$, both static efficiencies. Oligopoly: interdependence; the prisoners' dilemma makes defecting dominant, so both rest at the Nash (2, 2) though collusion (4, 4) pays more. Monopoly on the shared model: $MR = MC$ at $Q = 40$, $P = 50$, $ATC = 30$, supernormal profit 800; competitive benchmark (60, 40); deadweight loss $\frac{1}{2} \times 20 \times 20 = 200$.



Original model; the profit rectangle and the deadweight triangle are computed in the text.

2 Practice

2.1 Define allocative and productive efficiency.

[2]

2.2 Market shares are 40, 25, 15, 10 and 10 percent. Calculate the four-firm concentration ratio and interpret it.

[3]

2.3 State the four assumptions of perfect competition and the long-run outcome for price and profit.

[3]

2.4 In the game matrix, what is the Nash equilibrium and why is collusion unstable?

[3]

2.5 Name any four barriers to entry from the specification.

[2]

3 Exam-style questions

3.1 (*Original.*) On the model AR: $P = 70 - Q/2$, MR: $P = 70 - Q$, MC: $P = 10 + Q/2$: calculate the monopoly output and price, the supernormal profit if $ATC = 30$ at that output, and the deadweight loss against the competitive outcome.

[5]

3.2 (*Original.*) Explain, with a diagram, why a monopolistically competitive firm earns only normal profit in the long run.

[4]

3.3 (*Original.*) What conditions are needed for third-degree price discrimination, and who gains and loses?

[4]
