# Intro Micro | MiniExam E Demo

# Question | Breaking Up A Monopoly

Suppose the demand for a good X is given by

$$P = 100 - Q$$

with a single seller A producing X at a constant marginal cost of 10. The marginal revenue for A is

$$MR_A = 100 - 2q_A$$

Prices are in galleons.

### Q1 | Equilibrium Quantity

What quantity of X should A supply?

# $\mathbf{Q2}$ | Equilibrium Price

What price should A charge?



What profit will A generate?

### Q4 | Post Breakup Quantity

Due to it's strangle-hold on the market, the Commerce branch of the Ministry of Magic imposed a heavy-handed breakup of A into two companies, B and C, both with a marginal cost of 10 and with symmetric marginal revenue:

$$MR_B = 100 - 2q_B - q_C$$

$$MR_C = 100 - 2q_C - q_B$$

Find the Nash Equilibrium quantity of X supplied by B.

#### Q5 | Post Breakup Market Equilibrium Quantity

What is the market equilibrium quantity in the market? Is quantity less than, equal to, or greater than profit before the breakup?

#### Q6 | Post Breakup Price

What the market price in market after the breakup? Is price less than, equal to, or greater than profit before the breakup?

### Q7 | Post Breakup Profit

What the total profit (from both firms) in this market? Is profit less than, equal to, or greater than profit before the breakup?