Econ 0100 | Fall 2023 | MiniExam E

This MiniExam will take 15 minutes with quick break to follow. MiniExams are designed to both test your knowledge and challenge you to apply familiar concepts in new environments. Treat it as if you're trying to show me that you understand the material.

Academic Conduct Code

The following academic conduct code is designed to protect the integrity of your work. Print your initials beside the four academic honesty agreements before beginning.

I pledge to my fellow students, the university and the instructor…

… I ______ will complete this MiniExam solely using my own work

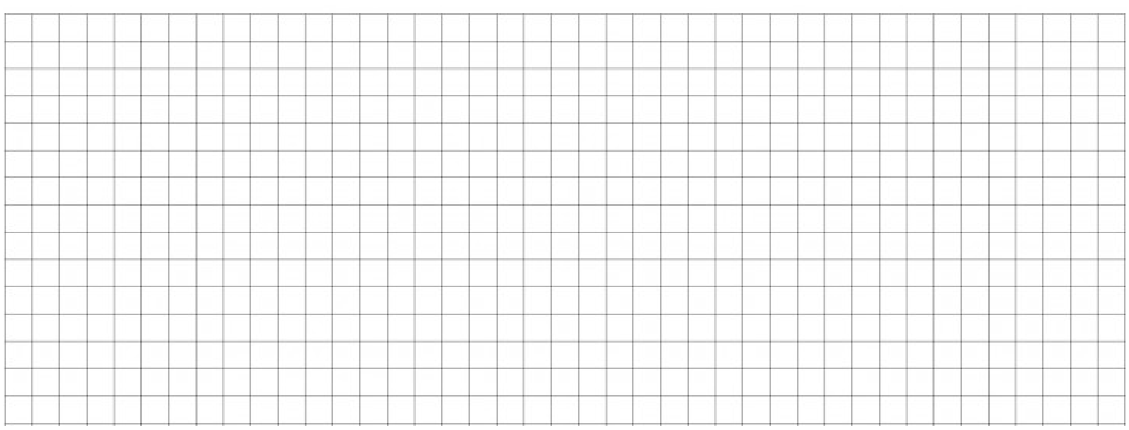
… I ______ will not use any internet connected devices or other online resources

… I ______ may use hardcopy resources (the textbook, printed materials, hardcopy notes)

… I ______ will not communicate with others during the MiniExam

Graph

Use this to graph the initial setup from the following page.



Name: ______________________________ Student ID: ______________________________ ***Version 1***

The Duel of Diagon Alley's Dwindling Dealers

Spell books had long been sold by many shops on Diagon Alley, with the number of sellers staying constant in the last 200 years, with identical marginal cost curves, $MC = 20 + 10q$, a price per book of $P = 40$, and the following demand relationship.

$$D : P = 190 - Q$$

This all changed when two mischievous siblings, Petunia and Vernon, separately began buying up the sellers of spell books. After a five year period of consolidation, they became the only two sellers of spell books, each operating their own separate but equally sized book seller, ***Petunia's Pages*** and ***Vernon's Volumes***.

$$MR_P = 190 - 2q_P - q_V, \qquad MR_V = 190 - 2q_V - q_P$$

We are about to diagnose the impact this consolidation had on the market for spell books. Use a graph on the front page to describe the market before the consolidation.

Q1 | Pre-Consolidation Profit Maximization

What is the firm's profit maximizing quantity before the market consolidation? ____________

Q2 | Pre-Consolidation Equilibrium Quantity

What is the equilibrium quantity before the market consolidation? ____________

Q3 | Pre-Consolidation DWL (*hint: no math needed*)

What is the deadweight loss in the market before the market consolidation? ____________

Q4 | Post-Consolidation Equilibrium Quantity (*hint: symmetric best responses*)

What is the total quantity produced by both firms after the market consolidation? ____________

Q5 | Post-Consolidation Equilibrium Price (*hint: use a graph here*)

After the consolidation, the price rises from 40 to what? ____________

Q6 | Post-Consolidation DWL (*hint: use Q^* from Q1*)

What is the deadweight loss after the consolidation? ____________