Econ 101 | Vignette E4

Carefully Crafting the Command of Costs

As an economics student at Hogwarts School of Witchcraft and Wizardry, you receive an unusual request from the Ministry of Magic. They are interested in understanding the potential impact of various policy proposals on the wizarding economy, and have tasked you with analyzing the impact of different policies on three firms in the cauldron-making industry.

The Ministry has observed that the cauldron-making industry has become increasingly concentrated in recent years, with a few large firms dominating the market. The Ministry has proposed several policy changes that could affect these firms differently. Your job is to analyze the potential impact of each policy on the three firms, taking into account their different cost structures.

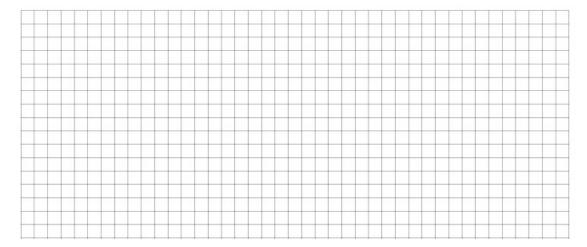
The three firms are as follows:

- 1. The Cauldron Co. This is a large, established firm that produces high-quality cauldrons using traditional methods. They have relatively high fixed costs, but low and constant marginal costs due to their economies of scale production processes.
- 2. The Witching Hour This is a smaller firm that specializes in producing novelty cauldrons with unique designs and features. They have some fixed costs, but increasing marginal costs due to the specialized nature of their production process.
- 3. Nimbus Cauldron Works This is a new entrant in the market that produces low-cost, mass-produced cauldrons using advanced manufacturing techniques. They have no meaningful fixed costs and low and constant marginal costs due to their highly automated production process.

Your task is to analyze the impact of various policy proposals on these firms listed below.

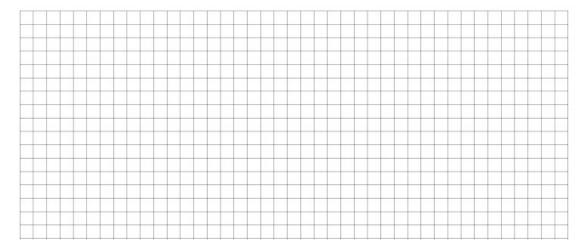
Question $1 \mid Lump Sum Tax$

Model a lump sum tax on the seller's side for each of the three firms.



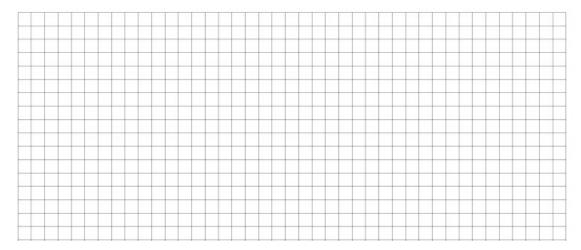
Question 2 | Lump Sum Subsidy

Model a lump sum subsidy on the seller's side for each of the three firms.



Question 3 | Per Unit Tax

Model a per unit tax on the seller's side for each of the three firms.



Question 4 | Per Unit Subsidy

Model a per unit subsidy on the seller's side for each of the three firms.

