

# ECON 0100 | Fall 2024 | Homework E1

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*Due: Sunday, November 10*

The Department of Magical Transportation is studying the broomstick manufacturing industry. Three major manufacturers dominate the market, each with distinct cost structures.

**CloudSweep Brooms** is an established manufacturer known for traditional broomstick production with large facilities and expensive equipment (high fixed costs) and standardized production methods (constant marginal costs).

**Skyline Custom Brooms** is a small manufacturer making personalized racing brooms working from a basic workshop (no fixed costs) with each additional broom taking more time and effort to make (increasing marginal costs).

**SwiftTech Brooms** is new company using automated production methods using rented automated equipment (no fixed costs) and simple, standardized production steps (constant marginal costs).

## Q1 (of 4). Cost Structures

Looking at Row 1 (Base Case) in the cost curve matrix, match each set of curves to the appropriate manufacturer:

- a) Column A - CloudSweep | Column B - Skyline | Column C - SwiftTech
- b) Column A - SwiftTech | Column B - CloudSweep | Column C - Skyline
- c) Column A - Skyline | Column B - SwiftTech | Column C - CloudSweep
- d) Column A - CloudSweep | Column B - SwiftTech | Column C - Skyline

## Q2 (of 4). Per Unit Subsidy

The Ministry gives firms 4 Galleons for each broom they make. Which graph shows SwiftTech's new cost curves?

- a) Graph C1
- b) Graph C2
- c) Graph C3
- d) Graph C4

## Q3 (of 4). Per Unit Tax

Which graph shows Skyline's cost curves after the Ministry imposes a 5 Galleon tax on each broom produced?

- a) Graph B1
- b) Graph B2
- c) Graph B3
- d) Graph B4

## Q4 (of 4). Lump Sum Tax

Which graph shows CloudSweep's cost curves after the Ministry imposes a 500 Galleon annual safety fee?

- a) Graph A1
- b) Graph A2
- c) Graph A3
- d) Graph A4

