Econ 101 | Vignette E3

The Wandmaker's Dillemma

Suppose the demand for wands is given by

$$P = 100 - Q$$

and there are two main wand sellers, Olivander and Gregorovitch. Olivander and Gregorovitch can make wands at a constant marginal cost of 10. The marginal revenue for Olivander is

$$MR_O = 100 - 2q_O - q_G$$

and for Gregorovitch it is

$$MR_G = 100 - 2q_G - q_O$$

Units are in galleons and stones.

Question 1. Two Choice Game

The following table represents the profits for the two firms at a high and low output. Find the Nash equilibrium.

		Gregorovitch	
		High	Low
Olivander	High	$900, 900$	$500, 1500$
	Low	$1500, 500$	$700, 700$

Question 2. Many Choice Game

Q2.a Olivarnder's Best Response

What is Olivander's best response?

Q2.b Gregorovitch's Best Response

What is Gregorovitch's best response?

Q2.c Equilibrium Price and Quantity

What is the Nash equilibrium price and quantity in this market?