31E99906 Capstone Microeconomic Policy

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Return method: through mycourses by the deadline

Problem Set 2: Question 1

The government is in the process of deciding if a train connection should be disconnected or continued. Currently, the travellers are charged the marginal cost of providing the service which is 20 euro per travel. Let q denote the quantity of travel, and assume that $q = 70$ at the current price $p = 20$. The fixed cost of providing the service is 5000 euros.

1. The government would like to know if the connection should be disconnected or continued. The government wants to find out if revenues from travellers could cover all costs; if not, the connection is discontinued. A consultant can offer a market study resulting in a precise estimate for the price elasticity of demand. You are advising the government to decide if the information from the consultant is needed. Based on your reading of the literature on elasticities for similar services, you assessment is that hiring the consultant does not affect the final decision. What can you say about your estimate for the elasticity? You can use a linear demand in your argumentation.

2. The government did not follow your advice and hired the consultant anyways. You left the job and started working for the consultant instead. Meanwhile the government continues offering the service and also opens a connection to another city, holding the price fixed at marginal cost $p = 20$ also for this other line. On this route as well, the demand is the same $q = 70$. The fixed cost is not affected by opening this other line. While working for the consultant, you learned that they actually estimated the elasticity of demand to be $-1/4$ in route one and $-1/8$ in route two. As an aspirational worker, you suggest a new pricing scheme for the two routes that is optimal for covering costs from providing the service. What is this pricing scheme?