600541 APPLIED BUSINESS ECONOMICS, 2021–22   TUTORIAL 2

If you wish to discuss the tutorial questions please come to my office hours.

1. SoS (Sounds of Silence, Inc) prepares to launch a revolutionary system of bluetooth-enabled noise-cancellation headphones. It is estimated that about 0.8 million consumers would be willing to pay $450 for the headphones; an additional 1.5 million consumers would be willing to pay $250 for the headphones. Though SoS knows this marketing information, it cannot identify a consumer as belonging to one group or the other. SoS is considering the launch of a stripped-down version of the headphones (the stripped down version uses wires instead of bluetooth). The 0.8 million high-valuation consumers would be willing to pay only $325 for the stripped-down version. The remaining 1.5 million consumers do not particularly care about bluetooth vs. wire connections; they are willing to pay the same $250 for either version. Both the bluetooth version and the stripped-down version cost the same to produce: $100 per unit.

   While attempting the following problems, you may find it helpful to refer to the handout from the price discrimination game. In particular, for part (b) you should look at the derivation of the optimal prices under second-degree price discrimination.

   (a) Determine the optimal pricing policy assuming that SoS sells only bluetooth-enabled headphones.

   (b) Determine the optimal pricing policy assuming that SoS offers the two versions. (Denote the price of the bluetooth version by p_B and the price of the stripped-down wired version by p_W.)

   (c) Suppose that SoS finds out that the estimate regarding the number of low-valuation users is overly optimistic. In fact, there are only 0.3 million consumers who would be willing to pay $250. How would you change your answers to (a) and (b)?

2. After making a fixed number of copies of a lithographic print, an artist may sometimes destroy the plate. Explain this behaviour.