ECO101H1S L101, L201: Principles of Microeconomics

Midterm 1, Winter 2022

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Short Answer Questions

1) This summer, the Royal Ontario Museum (ROM) will have a very popular exhibition. Due to space restrictions, they can only let 100 people in a day. Many more than 100 people a day want to see it at the current exhibition price. Right now their plan is to have people wait in line before they open, and let people in on a first-come-first serve basis.

1a) [8 points] You are looking for a summer job. One of your options is working via an app called Waitastic. People who need to wait in line for the ROM exhibit can hire people to wait in line for them via the app. People, like you, list themselves on the app as available to be hired to wait in line. You need to post an hourly rate on the app. The app takes 10% of your earnings as a service fee. How do you choose your minimum hourly rate to list on the app? Explain your reasoning and show all the steps of your working clearly.

Solution: The value you get from an hour spent waiting in line for some one else is the price you list on the app. Let's call that $\$p$. BUT don't forget that the app takes 10% of the price so you are left with 90% of the price. This means that you will be happy to take then job as long as for every hour $0.9\$p \geq OC_{1hour}$,