

Assignment 1

Due in tutorial in the week of September 28th

Each problem is worth 5 marks, 20 marks in total.

1. Do Problem 2 from Chapter 4. Clearly state any assumptions that you are making; make sure your assumptions are reasonable. *Hint: your answer should be along the lines of problems 18 and 16 from the same chapter.*

2. Mary's monthly demand for yoga is given by $P = 60 - 2Q$ where P is price per session and Q is the number of sessions she is willing to attend per month.
 - (a) Suppose White Lotus is the only yoga studio in Mary's town. What is the maximum amount that the studio can charge for a fixed package of 15 sessions¹? *(1 mark)*
 - (b) Now suppose that another studio opens in Mary's town. Green Tara offers yoga sessions at price of 30 dollars per lesson, no membership fees. Calculate how many sessions Mary demands if she goes to Green Tara, how much money she will spend and her consumer surplus in the studio. *(1 mark)*
 - (c) Given your calculations for parts (a) and (b), to which studio will Mary go? Shortly explain your answer using the concepts introduced in class. *(1 mark)*
 - (d) Suppose that White Lotus wants to use the following pricing strategy: offer unlimited yoga time and charge fixed membership². Calculate maximum membership fee that White Lotus can charge. Note: if Mary does not like the deal, she can always go to Green Tara and pay 30 dollars per lesson. *(2 marks)*

3. Do problem 20 from Chapter 5. For full marks provide explanations.

4. Do problem 16 from Chapter 5. For full marks also do the following: in part (b) determine whether X and Y are substitute goods; in part (c) determine whether X is a normal or an inferior good.

¹Here assume that no other options are available, Mary either buys the package or does not go to yoga.

²There no charge per class, Mary can go as many times as she wants per month, she has to pay fixed membership fee.