ECO101H1F: Principles of Microeconomics,Winter 2021
Assessment 3 Questions and Solutions

7AM (Morning) Sitting

W1. There are 2 siblings who need after-school tutoring - Aliza and Bruno. Each of their Marginal Benefit from tutoring curves is downward sloping, but not the same. Remember, we assume that fractions of goods (including time) can be bought/sold/traded. Assume no externalities. All tutoring is one-on-one (i.e. one tutor and one student working together for the given time), no group tutoring. The only cost to providing tutoring is the tutor's time.

a) [9 points] Aliza and Bruno's mother pays for 10 hours of tutoring a week and splits them equally between Bruno and Aliza. How would you determine if this allocation of tutoring hours is efficient? Explain your reasoning. Clearly state what information will you need to determine efficiency and explain how it will affect your answer. You can include a diagram if you want, but remember a diagram is not an answer. Your explanation needs to be sufficient without a diagram.

Solution: Suppose the smallest fraction of time possible is minutes for simplicity. To know whether the given allocation of tutoring time is efficient or not we need to check the Marginal Benefit (MB) of the last minute allocated to Aliza and Bruno's. If there is a difference (not due to rounding to a minute) then the allocation is not as efficient as it could be. We could increase surplus from the same 10 hours by moving a minute away from the lower MB person to the higher MB person. Notice also that we are not given the Marginal Cost (MC) of tutoring services.If the MC of the last minute of tutoring is higher than the MC of the last minute of tutoring then we could increase surplus by decreasing the amount of tutoring.