PS4: <https://edisciplinas.usp.br/pluginfile.php/4460730/mod_folder/intro/NI_11th%20Edtion%20%281%29.pdf>

Session 11: 3 hours

* 1. Derive the aggregate demand functions for and ; denote them as, respectively, and . **20 points**

Take a look at how first derivatives are related to their original function. Review Exponents and root relationships.

4.31 on page 127 of the textbook:

4.32 on page 127 of the textbook:

4.33 on page 127 of the textbook:

* 1. Write the equations describing the equilibrium conditions, using and to represent the aggregate endowments. **10 points**

<https://edisciplinas.usp.br/pluginfile.php/4460730/mod_folder/intro/NI_11th%20Edtion%20%281%29.pdf> : An endowment economy is a fancy term for an economy in which there is no endogenous production – the amount of income/output is exogenously given.

13.27 in textbook page 473: In words, Walras’ law states that the value of all quantities demanded must equal the value of all endowments (supply = demand).

* 1. Solve for the equilibrium price ratio. **20 points**

Slope of the budget constraint is the equilibrium price ratio. Marginal Rate of Substitution.

and at **utility maximizing point** is where the MRS = price ratios = slope of the budget constraint.

<https://www.google.com/search?q=slope+of+the+budget+constraint+is+the+equilibrium+price+ratio&rlz=1C1CHBF_enUS840US840&oq=slope+of+the+budget+constraint+is+the+equilibrium+price+ratio&aqs=chrome..69i57.8608j0j7&sourceid=chrome&ie=UTF-8>

<http://www.sfu.ca/~wainwrig/mpp/mrs-notes.pdf>

<https://www.cengage.com/resource_uploads/static_resources/032423662X/8279/AX_B-Arnold_431-438.pdf>