

Name:
Section:
T.A. Name

180.101 ELEMENTS OF MACROECONOMICS

Fall, 2011

Problem Set #2

Prof. Louis J. Maccini

INSTRUCTIONS: Above, write your name, section number and T. A. name. Answer each question in the space provided, or on the back of the same sheet.

1. Consider the following data on an economy:

<u>Output</u>	<u>Consumption</u>	<u>Investment</u>
2000	1600	600
2500	2000	600
3000	2400	600
3500	2800	600
4000	3200	600

- a. What is the equilibrium level of output for this economy? Show your calculations and explain your answer.

b. What is the equilibrium level of income for this economy? Do you have enough information to calculate it? If so, do so. If not, what additional information do you need? Carefully explain your answer.

c. What is the marginal propensity to consume in the above economy? Show your calculations and explain your answer.

- d. At a level of output of 4000, inventories are being depleted. True, false, uncertain. Explain carefully. Show your work.

2. Consider the following model of the economy:

$$Y = E$$

$$E = C + I$$

$$C = 300 + (2/3)Y$$

$$I = 400$$

where Y is real income or output, E is aggregate real expenditure, C is real consumption expenditure, and I is real investment expenditure.

- a. Provide a brief explanation of each of the relationships of the model.

b. Calculate the equilibrium level of income. Show your work, explain why it is an equilibrium, and draw a graph that describes the equilibrium. Be sure to label properly the relevant axes and curves.

c. Suppose now that the level of investment expenditures rises to a new level of 450. What will be the effect on real income? Will the effect on real income be larger, smaller or the same as the increase investment? For each question, defend your answer with appropriate calculations and graphs, use a “stages” analysis to illustrate you answer, and explain intuitively what is going on.