Homework # 4

Due February 14, 5pm

1. Suppose that consumption is determined by

\[ C = 100 + .5(Y - T) \]

and that \( G, I, \) and \( NX \) are each fixed at 100.

Calculate the effects on equilibrium gross domestic product (remember GDP is denoted as \( Y \)) of a one unit increase in a) \( G \), b) \( T \), c) \( I \) and d) \( NX \). Interpret your answers.

2. Repeat the calculations of the effects of a one unit increase \( G \) and a one unit increase in \( T \) when investment is no longer fixed at 100 but rather obeys the equation

\[ I = 100 + .1Y \]

Explain why the answer is different from what is found in 1.

3. Suppose that the government raises the levels of \( G \) by one unit and \( T \) by one unit, so that the budget deficit is not affected by the two changes. What is the effect on the equilibrium level of \( Y \)?

4. Suppose that taxes are not constant but rather that the level is determined by

\[ T = 10 + .1Y \]

a. Suppose that the government raises \( G \) by one unit. What is the effect on equilibrium output?
b. Suppose the government simultaneously raises $G$ by one unit and changes the tax equation to

$$T = 11 + .1Y$$

How will these policy changes affect the deficit?

5. Parkin, chapter 13, problem 1 (pg. 333)

6. Parkin, chapter 13, problem 5 (pg. 333)

7. Parkin, chapter 13, problem 6 (pg. 334)