Economics 1112: Principles of Macroeconomics  
Homework Assignment #7  
Due Monday, 4/5 at 4:30 p.m.

1) Assume the following data for a “closed” (i.e. no foreign trade) economy:
   - G=150  (Government Spending)  
   - T=.2Y  (Income Taxes)  
   - I=50  (Planned Investment)  
   - C=10 + .8Yd  (Consumption function; Yd = disposable income)

Using the Keynesian model we learned in class:

A) Calculate the equilibrium level of GDP

B)  
   i) Calculate the government spending multiplier  
   ii) By how much must you raise G to get GDP to rise by 100?

C) Draw a 45-degree line diagram and carefully illustrate how an increase in government spending leads to a higher level of national income

D)  
   i) Calculate the deficit (i.e. government spending minus total tax revenues)  
      (NOTE: The “deficit” could actually be negative – i.e. a “surplus”)  
   ii) If the government cuts spending by 6, by how much does the deficit/surplus fall? What is counter-intuitive about this result? What causes this counter-intuitive result?

2) Assume the following data for a “open” (i.e. with foreign trade) economy:
   - G=150  (Government Spending)  
   - I=50  (Planned Investment)  
   - C=10 + .8Y  (Consumption function)  
   - X=25  (Exports)  
   - M=10 + .4Y  (Imports)

Using the Keynesian multiplier model we learned in class:

A) Calculate the equilibrium level of GDP

B)  
   i) Calculate the government spending multiplier  
   ii) By how much must you raise G to get GDP to rise by 100?

C) Would the government spending multiplier be larger or smaller in the following cases? Explain
   a) If income tax rates were raised  
   b) If the marginal propensity to consume rose  
   c) If the marginal propensity to import rose  
   d) If investment were a positive function of income