Study Problem in Keynesian Macroeconomics II

The Simple Keynesian Model and Its Application

Consider three equations that pertain generally to any macroeconomy:

I. $Y = C + I + G$	The equality between Y, which represents income, and C + I + G, which represents total expenditures (or aggregate demand), is the (Keynesian) equilibrium condition.
II. $C = a + bY_d$	This simple linear equation shows the general form of the relationship between *after-tax* income and consumption. It describes consumer behavior. Y_d stands for *disposable* income, and $a > 0$; $0 < b < 1$.
III. $Y = C + S + T$	This equation is an identity that defines savings. That is, saving (S) is defined as that part of income not taxed away (T) and not spent on consumption goods (C).

Now, consider some data (expressed in billions of dollars) that describe a particular economy:

i. $C = 100 + 0.8Y_d$	This is a specific consumption equation that describes consumption behavior. It relates consumption spending to *after-tax*, or *disposable*, income.
ii. $I = 50$	This magnitude represents the current level of investment, which is based on the prevailing state of business confidence.
iii. $G = 60$; $T = 40$	These magnitudes represent the current levels of government spending and taxation. (Query: How is the government financing the deficit?)
iv. $Y_{fe} = 965$	This is the full-employment level of income--the level of income that reflects an absence of (cyclical) unemployment and corresponds to a wage rate that clears the labor market.

Answer the following questions using Keynesian threory and the specific data given.

1. What is the MPC?, the MPS?, the investment multiplier, the government spending multiplier, the tax multiplier, the balanced-budget multiplier?

2. Write the specific saving equation that corresponds to the consumption equation. [Hint: $S = f(Y_d)$]

3. At what level of income (Y, not Y_d) does savings equal zero?

4. How much is aggregate demand when income is 900? Is the economy in equilibrium at this level of income?

5. Find the equilibrium level of income? (Describe the process that brings about this Keynesian equilibrium.)

6. Suppose that government spending is increased by 10. Find the resulting equilibrium level of income?

7. How much *more* government spending is required to achieve full employment?

8. What tax policy would drive the economy from the equilibrium level calculated in question #5 above to its full-employment level?

9. What fiscal policy (involving changes in both G and T) would restore full employment without getting the government's budget any further out of balance? (Again, start with the equilibrium level of income calculated in question #5.)