Economics 101: Basic Economic Principles
Professor Clark
Problem Set #7 (due by **at the beginning of class on Friday, April 18th**)
This problem set covers the second half of chapter 31. (The first problem is the final historical case study on the 2001 recession. Problems 2 and 3 give you practice with the multiplier.) **Your explanations must be type-written; your diagrams can be hand-drawn.** You are welcome to work with a partner and turn in one problem set.

1. Complete the final case study from our handout on "Four Case Studies with the Aggregate Expenditures Model." This case study examines the **2001 Recession**. There are two parts to complete:

i) Answer the questions posed on the handout (please type out your answers):

- There is a decline in planned gross investment expenditures. Why?
- There is a drop in planned consumption expenditures. Why?

ii) Illustrate the effects of the recession on equilibrium GDP on an AE-Y graph and indicate where potential (i.e., full employment) GDP is in relation to equilibrium GDP. Be sure to fully and clearly label your graph. Explain your diagram in a paragraph. This should be type-written.

2. In 2010 Congress was worried that without further support, the ongoing economic recovery from the Great Recession would eventually peter out and leave the economy below the full-employment level of output. It contemplated introducing a new stimulus package that would have increased government spending to help boost aggregate expenditures. The goal was to increase equilibrium output by 500 billion dollars. Given the following estimates for the U.S. economy, by how much should Congress have boosted government spending?

a (autonomous consumption expenditures) = $300 billion,
b (marginal propensity to consume out of disposable income) = 0.90
T (lump sum taxes) = $50 billion; I = $350 billion, G = $250 billion, X = $40 billion, M = $45 billion

Explain in a paragraph and illustrate the effects of the policy on an AE/Y diagram.

3. In 2018 Congress was worried that the economy was starting to overheat (i.e., the current level of real GDP was approaching or even surpassing the full-employment level of output, i.e., potential GDP). It contemplated an increase in personal taxes (i.e., boosting the amount of lump sum taxes that households were to pay) in order to try to dampen any inflationary pressures that were starting to build up in the economy. The goal in changing taxes was to decrease equilibrium output by 180 billion dollars. Consider the following estimates for the U.S. economy.

a (autonomous consumption expenditures) = $300 billion,
b (marginal propensity to consume out of disposable income) = 0.80
T (lump sum taxes) = $50 billion; I = $350 billion, G = $250 billion, X = $40 billion, M = $45 billion

A) calculate the **current** level of equilibrium GDP.

B) By how much should Congress have boosted taxes (T) if the goal was to lower equilibrium output by $180 billion? Explain in a paragraph and illustrate the effects of the policy on an AE/Y diagram.