Problem Set C1
Econ 302 - Haworth
Due date: Friday, August 7 (by 11:59pm)
Note that Blackboard tends to shut down at 10pm, but that, if it does, then you can still email your problem set to Professor Haworth (bmhaworth@louisville.edu)

1. In the Keynesian Cross model, assume that the consumption function is given as:

$C = 200 + 0.75(Y - T)$

Assume that autonomous investment is 100, government spending is 100, and taxes are 100.

a. What is the equilibrium level of income?
b. If government spending (G) increases by 25, then what is the new equilibrium level of income?
c. What level of government spending is needed for this economy to produce output (Y) of 1600?

2. Assume that our Keynesian Cross model involves having a tax system with taxes that are not completely fixed. Assume that the tax equation is given as: $T = \bar{T} + tY$ (where $\bar{T}$ is some fixed amount of taxes, and t is the marginal tax rate on all income earned)

a. How does this tax system change the way consumption responds to changes in GDP?
b. In the Keynesian Cross model, how does this tax system alter the government spending multiplier?
c. In the IS-LM model, how does this tax system alter the slope of the IS curve?

3. Assume the following equations for an economy:
(note that all variables have their same definitions from class)

$C = 120 + 0.5(Y - T)$	C = consumption, Y = income (GDP)
$I = 100 - 10r$	I = investment, r = interest rate
$G = 50$	G = government spending
$T = 40$	T = taxes
$L(r,Y) = Y - 20r$	L(r,Y) = demand for real money balances
$M = 600$	M = money supply
$P = 2$	P = price level

a. Use this information to derive an equation for the IS curve
b. Use this information to derive an equation for the LM curve
c. What is the equilibrium level of income (Y) and equilibrium interest rate (r) in this economy?