

Test #2

Points for each problem are shown out of 100 points. Each subsection in a problem is weighted equally.

Please show the calculations used to arrive at your answers. Draw graphs neatly and label clearly. Round answers to the first decimal place if necessary.

A. (20 pts) Answer True, False, or Uncertain, and briefly explain your answer.

- (1) The monopsony model is characterized by a small number of firms facing a large number of consumers and no barriers to entry or exit.
- (2) The marginal propensity to consume is always less than the average propensity to consume.
- (3) If firms and households decide to keep a increased fraction of their money as cash, the money multiplier will increase.
- (4) Lower wages shift the short-run aggregate supply curve down/right/Southeast.

B. (20 pts) Short answers.

- (1) You will receive an inheritance of \$40,000 ten years from now. If the interest rate is 5%, what is the minimum amount for which you would—right now—be willing to sell the right to receive that inheritance?
- (2) What is the difference between real and nominal GDP?
- (3) If scientists (credible ones) announce that a meteor will destroy the world in the year 2012, how would you expect this to affect the consumption function and the investment function? Explain and illustrate.
- (4) If prices soar, but employment and output hold steady, explain and illustrate how this could happen by shifts in either or both of the aggregate demand and supply curves. Pay attention to the initial position before the shift(s) occur(s).

C. (15 pts) The market for widgets is perfectly competitive. All firms have costs $C(Q) = 5Q$. The demand for widgets is $Q = 500 - 10P$.

(1) What are market price and quantity?

A friendly, well-meaning conglomerate, Levy Ltd., buys all the widget-making firms and turns the market into a monopoly.

(2) Now what are market price and quantity?

(3) Graph the market before and after monopolization and indicate the deadweight loss that is caused by Levy Ltd.

D. (20 pts) Assume that the U.S. banking system's balance sheet looks like this and that banks are operating at the required reserve ratio (so no excess reserves):

Assets		Liabilities	
Reserves	\$10,000	Deposits	\$40,000
Loans	\$50,000	Capital	\$20,000
	\$60,000		\$60,000

(1) Illustrate what the banking system's balance sheet looks like after the Federal Reserve makes an open market purchase of \$2000 worth of securities. Include the resulting multiplier effect.

(2) Draw a graph illustrating what happens in the money market.

(3) Based on the change in the money market, graphically show what will happen to aggregate demand using an investment function diagram and a 45-degree line diagram (Keynesian cross).

(4) If the U.S. is initially on the LRAS curve, show graphically what will happen using the LRAS-SRAS-AD diagram and explain the chain of events until long-run equilibrium is restored.

E. (25 pts) Consider an economy characterized by the following equations:

$$AD = C + I + G; Y = AD; C = C_0 + C_1 Y_D$$

(1) If $Y_D = Y$, $C_0 = 1500$, $C_1 = .9$, $I = 4000$, and $G = 2000$, what does Y equal?

(2) Give the formula for the multiplier. What is the value of the multiplier?

(3) If $Y_D = Y - T$ and $T = 1000$, what does Y equal? What is the value of the multiplier?

(4) If $Y_D = (1 - T_1)Y$ and $T_1 = 0.1$, what does Y equal? What is the value of the multiplier?

(5) In (4), is the government running a surplus or a deficit, and if so, how much?