You've been hired as a managing consultant by an unprofitable firm to determine whether it should shut down its operation. The firm currently uses 70 workers to produce 300 units of output per day. The daily wage (per worker) is $100, and the price of the firm's output is $30. The cost of other variable inputs is $500 per day. Although you don't know the firm's fixed cost, you know that it is high enough that the firm's total costs exceed its total revenue. You know that the marginal cost of the last unit is $30. Should the firm continue to operate at a loss?

You have been appointed “Global Manager” of a firm that has two plants, one in the United States and one in Mexico. Assume, you cannot change the size of the plants or the amount of capital equipment. The wage in Mexico is $5. The wage in the U.S. is $20. Given current employment, the marginal product of the last worker in Mexico is 100, and the marginal product of the last worker in the U.S. is 500.   
a. Is the firm maximizing output relative to its labor cost? Show how you know.   
b. If it is not, what should the firm do?

Assume last year's real GDP was $7,000 billion, this year's nominal GDP is $8,820 billion, and the GDP-deflator for this year is 120. What was the growth rate of real GDP?

Assume the government cuts its purchases by $120 billion. As a result, the budget deficit is reduced by $40 billion, private domestic saving decreases by $10 billion, disposable personal income decreases by $80 billion and the trade deficit is reduced by $15 billion. By how much has national income (Y) changed?

Suppose that the economy starts at equilibrium and the mpc = 0.8. What would be the effect of a 300 increase in taxes once all the rounds of the multiplier process are complete?

For each of the following changes, show the effect on the demand curve, and state what will happen to market equilibrium price and quantity in the short run.   
a. Consumers expect that the price of the good will be higher in the future.   
b. The price of a substitute good rises.   
c. Consumer incomes fall, and the good is normal.   
d. Consumer incomes fall, and the good is inferior.   
e. A medical report is published showing that this product is hazardous to your health.   
f. The price of the product rises.

 For each of the following changes, show the effect on the supply curve, and state what will happen to market equilibrium price and quantity in the short run.   
a. The government requires pollution control filters that raise production costs.   
b. Wages of workers in this industry fall.   
c. There is an improvement in technology.   
d. The price of the product falls.   
e. Producers expect that the price of the product will fall in the future

You have opened your own word-processing service. You bought a personal computer, and paid $5,000 for it. However, due to the cost changes in the computer industry, the current price of an equivalent machine is $2,500. You could sell any used machine for $1,000. If you were not word processing, you could earn $20,000 per year at an alternative job. Assume that the interest rate is 10%. You can also hire an assistant who can do everything that you can do for $20,000 per year (you would still continue to do word processing).   
One person using one computer can produce 11,000 typed pages per year, and the price per page for your service is $2.   
You are considering three options: (1) expand your business by hiring an assistant. (2) leave your business the way it is (3) shut down. Based on the costs and revenues above, which should you do? Explain and show any relevant calculations.