Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 150 points (to be scaled up to 220 points) and is scheduled to take 75 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class. I will not grade what is written on this sheet.

1) (10 points) Answer EITHER Part A OR Part B.
A) Copy this table into your test booklet. Fill it in. Show all work.

Q	TC	TVC	TFC	ATC	AVC	AFC	MC
1	150		120				

B) What is the biggest determinant of the interest rate on the loan? Explain your logic.

2) (12 points) Answer EITHER Part A OR Part B.
A) What is the *efficient markets hypothesis*? Why is it important?
B) Why does the MC curve go through the minimum of the ATC curve? Explain your logic.

3) (12 points) Answer EITHER Part A OR Part B.
A) Explain why utility maximization requires $MU_X/P_X = MU_Y/P_Y$.
B) What are the two effects that cause the demand curve to slope down? Explain how they cause the demand curve to slope down.

4) (16 points each) The table to the right can be used to calculate three different elasticities. For each elasticity, there is only one pair of rows which will work. For TWO of the following elasticities, tell me which two rows you are using for that elasticity and why you chose those two. Then calculate the elasticity. Show all work. What does that number tell you about CDs and/or downloads? How do you know? These numbers are made up, so the information gotten may not be the real world situation. You may want to look at the next question before answering this question.

P_{CD}	$P_{download}$	Income	Q_{CD}
10	1	1000	100
20	2	2000	200
20	1	1000	50
20	4	2000	100
20	2	6000	400

A) Own-price elasticity, E_P, using the point formula.
B) Cross-price elasticity, E_{XY}, using the arc formula.
C) Income elasticity, E_I, using the arc formula.

5) (10 points) Answer EITHER Part A OR Part B.
A) For the elasticity you **did not answer** in Question #4, what value do you think that elasticity would have in the real world. Explain your logic.
B) If a good is a large percentage of your budget, what does that mean about its own-price elasticity? Explain your logic.

6) (16 points) Answer EITHER Part A OR Part B.
A) The proposal for the solar panels for my house said that the installation cost was a certain amount. They
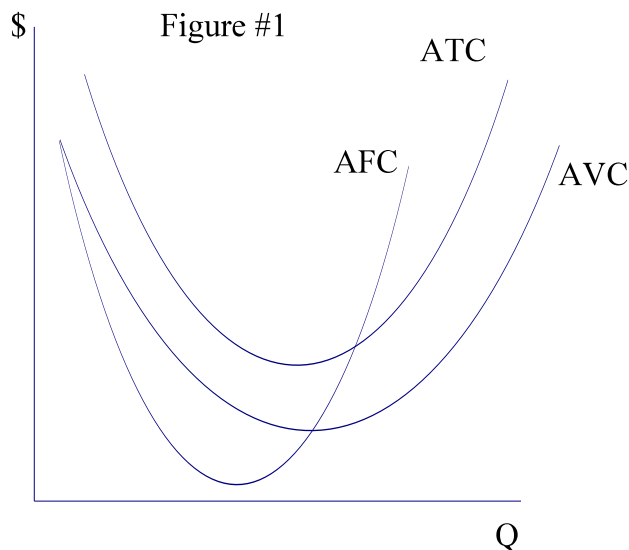
then said that I would save so much per month (which varies with the season) and then took all of the monthly savings and multiplied it by the number of years, 30. That gave the total savings. They then concluded that the savings exceeded the costs by $17,000. What is wrong with that analysis? Explain your logic. Explain how they should have done the calculation.

B) Suppose a bond has a face value of $1000 with a maturity date in three years. The coupon rate is 10% with interest paid annually. Suppose you paid, $1050 for it. Set up the equation which would you could use to figure out the return you are earning. Without doing the calculation, do you think the return is greater, less than, or equal to 10%? Explain your logic.

7) (18 points) Answer EITHER Part A OR Part B.
A) Figure #1 has at least five errors. Find THREE of the errors. Explain how you know they are wrong. (A missing line is not an error in this case.)
B) Draw what Figure #1 should look like and add the missing line.

Figure #1

8) (20 points) Answer EITHER Part A OR Part B.
A) What is the problem facing Social Security? What are the two causes of the problem which mean it will get worse for the next decade? One proposal to reducing the problem is to raise the retirement age. How would that reduce the problem? Would you use that as part of your solution to save Social Security? Explain your logic.
B) Draw the supply and demand for a good like textbooks which has a fairly steep demand curve and a relatively flat supply curve. Illustrate the effects of a tax on textbooks on the graph. Explain why it moved as drawn. As drawn, who pays most of the tax? Explain how you reached that conclusion including referencing points on the graph.

9) (20 points) Copy the table to the right into your test booklet. Fill it in. Show all work and if there is no work, then state how you got it.

Q	Total Utility	Average Utility	Marginal Utility
0			
1	20		
2		15	
3			6
	40		2