

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (15 points) For this question, assume you are choosing between working in the USA after graduation or getting a master's degree and then working in the USA. Also, assume you are graduating at the end of this semester. Suppose that a master's degree costs \$30,000 a year and it takes two years to graduate. If you get the master's degree, you will then work for 46 more years. The salaries you would get can be found at: <https://www.statista.com/statistics/233301/median-household-income-in-the-united-states-by-education/>. Setup the calculation which could be used to determine the internal rate of return. Do not worry about doing the calculation. Explain why you put the numbers where you did and how you would use it to calculate the internal rate of return.

2) (20 points) The table on Page 273 always has the social rate of return less than the private rate of return. They are making two assumptions which cause this result. One of these assumptions is about the social costs and one about the social benefits. What are these assumptions? In the real world, one of those assumptions is wrong. Which is wrong and why is it wrong. If they made a more realistic assumption, would the social return be bigger or smaller? Explain your logic.

3) (15 points) Why does the table on Page 273 show that for most countries, the highest return is to primary education? Why do low income countries have such a high return for tertiary education. Explain your logic for both parts.

4) (15 points) One way to increase the education levels of the citizens in the poorest countries is to provide meals to students. Explain why that would work.

5) (20 points) In 2019, the gross enrollment rate in tertiary education in Greece was 148.53%. How can that be greater than 100%? It is both good and bad that the number is greater than 100%. Do you think it is more good or more bad? Explain your logic.
<https://www.indexmundi.com/facts/indicators/SE.TER.ENRR/rankings>

6) (15 points) What is the *identification problem*, a.k.a. the *sample bias* problem with calculating the rates of return to education? Explain why that occurs. Is the real return less than or greater than what is estimated? Explain your logic.