

101LON - The Economic Environment of Business

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Seminar 1

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1 Basic Maths

Please attempt to solve all the following problems. If you require any assistance ask in class.

1.1 Problem 1

Draw the graphs for the following equations:

a. $y_1 = 2 + x$ $x \in [0, 3]$

b. $y_2 = 2 + 2x$ $x \in [0, 3]$

c. $y_3 = 6 - 0.8x$ $x \in [0, 3]$

d. $y_4 = -1 + x^2$ $x \in [0, 3]$

1.1.1 Hint

First, calculate all the points for each equation. Then place the points in a simple XY graph. Remember to label your axes and follow the usual placement of the variables, i.e. X on the horizontal and Y on the vertical.

1.2 Question 1

For the equations given in Problem 1 find the *slope* and the *intercept* parameters.

- What is the meaning of the intercept?
- What is meaning of the slope?

1.2.1 Hint

First you can define the two mathematically. But, consider what could be the economic meaning of the two parameters.

1.3 Problem 2

Find the first derivative of the following equations:

- a. $y_1 = 7 + 1.2x$
- b. $y_2 = -2 - 2x$
- c. $y_3 = 6 - 0.8x^2$
- d. $y_4 = 6 - 0.3x^3$
- e. $y_5 = a + bx - cx^2 + 3x^3$

1.3.1 Hint

What is the derivative? Discuss in both mathematical and economic terms. Link with the previous Problem.

1.4 Question 2

Discuss the following :

- What is an Economic model and why do we use them?
- What is the difference between an exogenous and an endogenous variable?
- What is the difference between a dependent and an independent variable?

2 Basic Concepts in Economics

For the following questions you need some online resources and to watch the videos in [Moodle - Unit 1](#).

2.1 History of Economic Thought

Watch the following video with the rest of the class: [Economic Schools of Thought](#).

2.1.1 Activity 1

- Discuss in the class why Economics is not considered an exact science.

2.1.2 Activity 2

- Do a quick research of what was the reason that Classical Economics collapsed. Discuss.

2.1.3 Group Activity

- Split in groups of 3-4 students and prepare a short presentation (2-3 slides) in which you will present to your fellow students the main ideas and contributions of the following famous economists:

1. Adam Smith
2. David Ricardo
3. John Maynard Keynes
4. Alfred Marshall
5. Douglass North
6. John Forbes Nash

Hint

Make sure that you include in your presentation some basic bio info, the main contributions to theories, models, assumptions in economics and the school of thought they influenced.

2.2 Positive or Normative

What is the difference between a positive and a normative statement?

2.3 Economic Systems

Watch the following video with the rest of the class: [Economic Systems](#).

2.3.1 Activity 1

- Discuss in the class what are the 3 types of economic systems and what are the main differences between them.

2.3.2 Activity 2

- Put the following countries into three different categories depending on their economic system.

1. China	9. Sweden
2. Cuba	10. Hong Kong
3. Japan	11. Singapore
4. France	12. Australia
5. Russia	13. UK
6. North Korea	14. USA
7. Germany	15. former USSR
8. South Korea	16. Finland

3 Short Questions

3.1 True or False?

Economists study many issues, but all of them stem from the central economic problem of scarcity.

T/F

The problem of scarcity will eventually disappear with the development of new technology and resulting higher levels of production.

T/F

There is no need for a government in a market economy.

T/F

Normative statements are prescriptive, whereas positive statements are descriptive.

T/F

The value of an exogenous variable is NOT determined outside the model.

T/F

3.2 MCQ

- A fundamental concept in economics is the idea of

- a. banking.
- b. scarcity.
- c. money.
- d. poverty.

- Almost all economists agree that a legitimate role for the government is

- a. creating large federal budget deficits.
- b. subsidizing professional sports franchises.
- c. the redistribution of income.
- d. managing agricultural subsidies.

- If a tax on unhealthy food items like soda and candy bars causes people to purchase less of these items and eat more healthful alternatives. Which principle of economics does this illustrate?

- a. People respond to incentives.
- b. People face tradeoffs.
- c. The cost of something is what you give up to get it.
- d. Rational people think at the margin.

- Which of the following is something an economist might study?

- a. All of these answers are correct.
- b. Phil decides to work overtime to earn extra income for his upcoming family vacation.
- c. Claire sells her physics textbook from last semester to her roommate for half the price she paid for it.
- d. Roger reads a newspaper article about the decline of the unemployment rate in the United States over the past few years.

- Marginal thinking involves:

- a. comparing the total benefit and total cost of a decision.
- b. accurately calculating the opportunity cost of a decision.
- c. weighing the small incremental benefits against the small incremental cost of a decision.
- d. always acting in your own self-interest.