

# 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.