

Midterm 1 Material (ECON 560)

General guidelines:

- This is a closed notes and closed books exam, and no calculators are allowed.
- The questions are based on notes and homework assignments. Students, who can solve the homework assignment questions without looking at the notes, will do very well on the midterm.

Detailed guidelines:

1. Introduction and preliminaries.

- a. Growth rates, variables that grow at a constant rate, doubling time, rule of 70.
- b. Important: Properties of logarithmic scale. Prove that the \ln of a constant growing variable is a straight line and know that the slope of that line is approximately equal to the growth rate of the original variable. Applying the properties of logarithmic scale to graphs.

2. PPP exchange rates.

3. Physical capital.

- a. Accounting for cross country differences in GDP/capita under the assumption of Cobb-Douglas production function. This is sometimes called “basic accounting” or “back-of-the-envelope” accounting.
- b. The Solow model. I will provide the description of the model in section 2.1 in the notes on physical capital, and then ask questions about it.
- c. Using the Solow model for cross country accounting.