

ECON 4002.01 Midterm Exam

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Instruction

Please submit your answer on Carmen Quiz “Midterm Exam”. All numerical answers are supposed to **round to the second decimal point**,¹ and all algebraic answers are supposed to

You **may** consult any note and textbook, but you **cannot** discuss with your classmate or any other person about the exam.

There will be one T/F choice question that worth 2 points in the Carmen Quiz “Midterm Exam”. The T/F choice question is to confirm: **“I affirm that I have not received or given any unauthorized help on this exam, and that all work is my own.”**

Question 1

Considering an one-period general equilibrium model similar to Example in Lecture 08, slide 11 and 12. However, in this model economy, there are two differences:

1. firm is choosing capital input, and consumers are endowed with 2 units of capital ($K^S = 2$).
2. consumer’s utility function is $U(C, l) = \frac{C^{1-b}}{1-b} + \frac{l^{1-d}}{1-d}$

The competitive equilibrium given **{ Q1 }** is a set of allocations **{ Q2 }** and prices **{ Q3 }** such that

- 1.

¹round to the second decimal points means that if the third decimal point is a number between 0 to 4, then just get rid of the third decimal point. On the other hand, if the third decimal point is a number between 5 to 9, then round the second decimal point up by adding 1 to the second decimal point number. For example, if the answer you get is 0.534, then round it to 0.53. Yet, if the answer is 0.535, then round it up to 0.54.