

# Economic Dynamics

## Homework 3: Due November 4, 2016 11:00am

### Requirements

Submit your homework *by email* to

"Economic Dynamics" <dynamics-hw@turnbull.sk.tsukuba.ac.jp>

The **Subject:** should be FH21051 Homework #3 (in hankaku romaji). Use this class number, even if you are registered according to a different code. Your email must contain your *name* and *student ID number*.

### Problems

Consider the *linear production function*:

$$F(K, L) = rK + wL.$$

1. Does the linear production function have *constant returns to scale*? Prove your answer.
2. Is the linear production function *neoclassical*? Show your work, and be careful about treatment of equalities!
3. The linear production function is not often used (at least not in this form) in growth theory. Why is this function uninteresting to economists? (Thought question: That is, any guess is a good guess, but please do try to answer this question.)
4. Why do you think I chose the coefficients  $r$  and  $w$  in the equation defining the linear production function? (Another “thought question.”)