

Midterm Exam October 23 2013 2:30 – 3:30 pm

Do all 3 questions. All count equally.

1. What is a consumer's expenditure function, if her (direct) utility function is

$$U(x_1, x_2) = \log(x_1) + \log(x_2)$$

(where "log" denotes the natural logarithm)?

2. (Without proof), give two different properties which are equivalent to the statement : "person 1, with the utility-of-wealth function  $U(W)$  is always more risk averse than person 2, with the utility-of-wealth function  $V(W)$ ".

3. What is the profit function  $\pi(p, w_1, w_2)$  for a firm with a cost function

$$C(w_1, w_2, y) = \frac{w_1 w_2}{(w_1 + w_2)^2} y^2 \quad ?$$