

School of  
economics and  
law

## E X A M

**Course code:** BE-409  
**Course name:** Real Estate Economics

Date: September 29, 2014  
Duration: 4 hours

Number of pages incl. front page: 2

Resources allowed: Calculator, book of formulas, dictionary

Notes: The student may answer the questions either in English or in Norwegian.

---

### *Assignment 1 (counts 55%)*

- a) By means of a model, show that the housing rent in a monocentric city can be expressed by:

$$R(d) = (r^a q + c) + k(b - d)$$

where:

$R(d)$  is housing rent

$d$  is distance to the city center

$r^a$  is agricultural rent per  $m^2$

$c$  is structure rent

$k$  is cost of commuting per km

$q$  is land per unit of housing

$b$  is distance from the city center to the city border

- b) Illustrate the housing rent gradient in a figure and explain why the rent is higher at locations close to the city center.
- c) Derive the expression for the land rent.
- d) What might cause the rent on land to increase?