UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Exam: **ECON4415 – International trade**

Date of exam: Thursday, December 06, 2007 **Grades will be given: January 4, 2008**

Time for exam: 2:30 p.m. – 5:30 p.m.

The problem set covers 2 pages

Resources allowed:
- No resources allowed

The grades given: A-F, with A as the best and E as the weakest passing grade. F is fail.

Problem 1

A Ricardian model: Suppose that two countries, England and Portugal, produce cloth and wine with the following labor requirements.

	Cloth (per pound)	Wine (per gallon)	Total labor force
Home	4	8	100
Foreign	24	12	100

Preferences are Cobb Douglas with cloth having a share 3/4.

a) Which country has absolute advantage and which has comparative advantage in in each of the two goods?

b) Draw the production possibility frontier (PPF) for each country.

c) Describe the autarky equilibrium conditions in both countries.

d) Solve for the equilibrium prices and quantities when countries are not allowed to trade. In which country is the relative price of cloth higher? Why?

e) Now suppose that countries are allowed to trade. Compute the world relative price of cloth and relative wages.

f) Explain the pattern of trade using the PPFs for both countries.

g) Show that both countries benefit from trade.

Problem 2

Suppose that two countries, Norway and Spain, have the same preferences and technologies. However, suppose that Spain has a higher labor/capital ratio than Norway. Suppose that both countries can produce two goods, machinery and food. Suppose that the production of food is relatively labor intensive. Production is characterized by constant returns to scale.

a) Draw the production possibilities frontiers for these two countries.

b) Which country will have a lower relative price of food under autarky? Explain.

c) Show graphically the effects of trade opening on relative prices, the term of trade and the pattern of specialization. Show export and imports in the same graph.

d) Explain how the Stolper-Samuelson theorem applies to the above example of opening for trade.

Problem 3

Explain the concept “Home market effect”.

Problem 4

Industrial agglomerations:

a) Explain how the interaction of imperfect competition and supplier linkages may give rise to agglomeration forces (also referred to pecuniary externalities).

b) A country may potentially be active in two sectors, A and B. There is just one factor of production, labor. Sector B is characterized by agglomeration forces, while sector A is characterized by constant returns to scale. Show graphically what the possible equilibria in terms of employment are in the two sectors. Show and discuss how the resource allocation between the two sectors matters for factor returns and thus for the country’s welfare.