

Name \_\_\_\_\_

There are 2 countries in the world - **H** and **F**. Both of them can produce two goods - **cheese and wine**. Only production factor is **labor**, which is perfectly mobile. We suppose perfect competition. The unit labor requirements at **H** in wine production is 3, in cheese production 2. The unit labor requirements at **F** in wine production is 5, in cheese production 1. **H** has 1500 labor units, **F** has 1000 labor units. The one hour's wage at **H** (without trade) is \$10, at **F** (without trade) is \$10. The total relative demand for cheese (in terms of wine) is given :

$$(Q_C + Q_C^*) / (Q_W + Q_W^*) = (10/3) - (10/3) P_C / P_W$$

where  $P_C / P_W$  is the relative cheese price in the world market.

1. (4) Draw the production possibilities frontiers for both countries.
  
2. (2) The price of wine at H without trade is \$:
3. (2) The price of cheese at F without trade is \$:
4. (2) Country H has a comparative advantage in:
5. (2) When there is international trade F produces only:
6. (4) Draw the total relative demand and total relative supply curves in the world market
7. (4) The equilibrium relative price of wine in the world market is:
8. (4) The one hour's wage at F (with trade) is (if one hour's wage at H is still \$10):
9. (2) A worker at H for his hour's wage without trade can have .... kg of cheese or .... l of wine
10. (2) A worker at H for his hour's wage with trade can have .... kg of cheese or .... l of wine
11. (2) A worker at F for his hour's wage without trade can have .... kg of cheese or .... l of wine
12. (2) A worker at F for his hour's wage with trade can have .... kg of cheese or .... l of wine

There are 2 countries in the world - **H** and **F**. Both of them can produce only two goods - **wine** and **cars**. There are two production factors used in the production of both goods: **labor (L)** and **physical capital (K)**. The **wine** production is more **labor** intensive, the production of **cars** is more **physical capital** intensive. The country **F** is relatively better endowed with physical capital than the country **H**:  $K/L < K^*/L^*$ .

13. (2) If there is an international trade, the country **H** will specialize in ....., the country **F** will specialize in .....
14. (4) The support for the international trade in the country **H** comes from owners of .....
15. (4) Workers' wages in the country **F** ... crease with the international trade.

The Skoda car company sells its products in the world market which can be described as a perfectly competitive and in the domestic market, in which it has some sort of monopoly power. The marginal cost of its cars production  $Q/20$ , where  $Q$  is the quantity of cars produced. The world price of the cars of the corresponding class is  $P^W = \$ 15\ 000$ . At home Skoda sees the demand for its cars:  $P = 24\ 000 - Q/40$ .

16. (6) In the domestic market Skoda sells cars for the price  $P^D = \$$  .....
17. (4) Skoda exports ..... cars and sells them for the price.....

Production function is given by:  $Y = K^{1/2}N^{1/2}$ , where the population  $N$  grows with a constant growth rate  $g_n = 2\%$ ,  $N_t = N_{t-1}(1 + g_n)$ . The depreciation rate is  $\delta = 4\%$  and the saving rate is  $s = 24\%$ .

a. (10 points) Calculate the steady-state values of  
capital per worker  
output per worker

b. (8 points) Calculate the steady-state values of  
the growth rate of capital  
the growth rate of output