Exercise 9: Aggregation Exercise

Edward C. Prescott

February 28, 2002

The two plant technologies are as follows:

 Technology A requires 1 unit of capital and 2 units of labor per unit of output produced.

• Technology B requires 2 units of capital and 1 unit of labor per unit of output produced.

Exercise A: Find the aggregate production function, F(K,N).

Exercise B: Find the equilibrium prices of the factor inputs as a function of K/N.

Hints: In figuring out the answer to this question, you may find it helpful to determine the isoquant for output level 1. Note that payments to factors exhaust product and that the marginal rate of substitution is equal to the ratio of factor prices.