Your reading assignment is Chapter 5

**Homework 2**

1. Suppose that the production technology is where

Here is a vector of fixed parameters.

1. Find a range of values for assuming this technology exhibits increasing returns to scale.
2. Assume that the technology exhibits constant returns to scale. Solve the cost minimization problem:

s.t.

to find the conditional input demand and the cost function

1. Assume that Let . Plot the graph of as a function of .
2. Compute the marginal cost, .
3. Let . Show that input 1 and 2 are complements (Hint: You want to calculate the cross-price elasticity of input demands.)
4. Recall that the CES technology subsumes linear, Cobb-Douglas, and Leontief technologies as special cases at respectively. Find the conditional input demands for each of these technologies using your answer in part b.