The "aggregate production function" for an economy exists only if the *total* output that the economy can produce depends *only* on the *total* amounts of labor input, capital input, and technological knowledge used. This implies that the distribution of inputs (and output) among firms *does not matter*.

- a. Why can there be no aggregate production function unless all firms have identical production functions
- b. Why can there be no aggregate production function unless these individual-firm production functions have constant returns to scale