

University of Wisconsin-Madison
Department of Economics

Econ 703
Fall 2003

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Homework #9

1. Sundaram, #7, p.143
2. Sundaram, #9, p.143
3. Sundaram, #11, p.144
4. If x thousand dollars is spent on labor and y thousand dollars is spent on equipment, a certain factory produces $Q(x,y)=50 x^{1/2}y^2$ units of output.
 - a) How should \$80,000 be allocated between labor and equipment to yield the largest possible output?
 - b) Use the Envelope Theorem to estimate the change in maximum output if this allocation decreased by \$1000.
 - c) Compute the exact change in b).