

Due: June 09, 2011

Econ 2002A
Assignment.3
Total marks: 10

Answer the following questions

1. **(6 marks)** State whether each of the following statements is true or false. Using appropriate **diagrams**, **explain** your response.
 - a. Consumer surplus cannot be zero.
 - b. If marginal product is negative, average product must be negative.
 - c. If marginal product is decreasing, then average product must also be decreasing.

2. **(4 marks)** suppose that a firm's total cost is described by the following cost function:
$$TC = 200 + 100Y - 4Y^2 + (1/4)Y^3$$
 - a. Write down the equations for the firm's TFC, TVC, MC, AFC, AVC and ATC.
 - b. Assuming various values of Y (Y=0, 1,25) create a table of these cost equations.
 - c. On the same diagram, draw TFC, TVC and TC.
 - d. On a separate diagram, draw AFC, AVC, ATC and MC