Wilf Csaplar Jr.   Economics 280   Homework #5   Due 10/12

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (25 points) Draw the MRP_L/MRC_L diagram. Draw the effect(s) of an increase in the demand for the good. Explain why the curve(s) moved as drawn. What happens to the wage rate and the amount of labor hired?

2) (15 points) If the TP_L function is given by $TP_L = 39L + \frac{1}{2}L^2 - \frac{1}{3}L^3$, then find the MP_L and the AP_L. Use those results to find the E_L for 6 units of labor. Show all work for all three parts.

3) (10 points) If the $E_L = .8$, then which stage of production are you in? Briefly explain your logic. If you increase your labor by 10%, then how much will your output increase? Briefly explain your logic.

4) (10 points) Is the slope of the isoquant $-MP_L/MP_K$ or $-MP_K/MP_L$? Explain your logic.

5) (15 points) What is the equi-marginal principle for production? Explain why it holds.

6) (25 points) Draw the AP_L/MP_L diagram. Illustrate on it the effects of purchasing more capital. Explain why the line(s) moved as drawn.