Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. 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) ( 15 points) How do we calculate the $\mathrm{MRP}_{\mathrm{L}}$ ? Why is that what we pay them?
2) (15 points) Why do we hire workers, skilled and unskilled, and machines until the ratio of the MP/P is the same across all three groups?
3) (40 points) Fill in the following table. Show all work. If there is no work, state how you got the entry. Assume the firm is a perfectly competitive firm. Use it to determine how many people should be hired if the wage is $\$ 200 / \mathrm{L}$.

| L | $\mathrm{TP}_{\mathrm{L}}$ | $\mathrm{MP}_{\mathrm{L}}$ | Sales Price | TR | MRP |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 |  |  | $\$ 50$ |  |  |
| 1 | 5 |  |  |  |  |
| 2 |  | 6 |  |  |  |
| 3 |  |  |  | 750 |  |
|  |  |  |  | 950 | 100 |

4) (15 points) Explain why VMP $<$ MRP for a price searcher? (I expect more than the one sentence in the book. A mathematical example might help.)
5) (15 points) What happens to the elasticity of supply of a resource like labor over time? Explain your logic.
