PA 5431/HRIR 5655: Public Policies on Work and Pay

Due Date:October 13th 2020

Fall 2020

**Homework 4**

1. Suppose the table below represents increases in total output as additional individuals are assigned to work with a piece of machinery. Compute the average and the marginal products of labor for each additional worker. If the wage rate is $30 and the price of output is $6, how many workers will the employer wish to hire? What if the wage falls to $12? What if the wage falls to $2?

|  |  |
| --- | --- |
| Number of Workers | Total Output |
| 1 | 15 |
| 2 | 21 |
| 3 | 28 |
| 4 | 35 |
| 5 | 58 |
| 6 | 67 |
| 7 | 68 |
| 8 | 60 |

1. Given the following information, complete the tables as shown and determine the approximate number of workers to be hired by the firm in equilibrium.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Output** | **Workers** | **Wage** | **Price of Output** | **Total Labor Cost** | **Total Revenue** | **Profit** | **Marginal Revenue** | **Marginal Cost** |
| 0 | 0 | $ - | - | - | - | - | - | - |
| 4 | 1 | $10.00 | $5.00 | $10.00 | $20.00 | $10.00 | $5.00 | $2.50 |
| 7 | 2 | $10.50 | $5.00 |  |  |  |  |  |
| 10 | 3 | $11.46 | $5.00 |  |  |  |  |  |
| 14 | 4 | $13.57 | $5.00 |  |  |  |  |  |
| 22 | 5 | $14.82 | $5.00 |  |  |  |  |  |
| 26 | 6 | $15.73 | $5.00 |  |  |  |  |  |
| 30 | 7 | $17.84 | $5.00 |  |  |  |  |  |
| 34 | 8 | $18.85 | $5.00 |  |  |  |  |  |
| 38 | 9 | $22.33 | $5.00 |  |  |  |  |  |
| 46 | 10 | $24.26 | $5.00 |  |  |  |  |  |