

Problem Set 4 Solution: Markets for Factors of Production

Refer to the following scenario: You and your friends want to organize a bake sale to fund your student club. It was decided you bake almond cookies and sell them in packs of 5 for \$2 per pack. You would like to reimburse every student for the expenses faced when buying almond flour, butter, etc., and their troubles with \$4. Given the following information, how many of you should heat up the oven and start baking almond cookies?

L	W	Q	P
0	4	0	2
1	4	14	2
2	4	26	2
3	4	36	2
4	4	44	2
5	4	50	2
6	4	54	2
7	4	56	2
8	4	57	2

To answer the following question, fill out below table first:

L	W	MP	MRP	Additional Profit per Baker
0	4			
1	4			
2	4			
3	4			
4	4			
5	4			
6	4			
7	4			
8	4			

1. What is the profit-maximizing quantity of students you should employ at the wage you are willing to pay?
 - a. 6
 - b. 7
 - c. 8
 - d. 9

2. How much additional profit will you make when employing the third student?
 - a. 24
 - b. 20
 - c. 16
 - d. 14

3. The demand for factors of production is _____.
 - a. Upward sloping
 - b. Downward sloping
 - c. Derived from the demand for the good or service produced
 - d. Both b. and c.

4. The marginal product of capital refers to _____.
 - a. The additional units produced when employing another machine.
 - b. The additional revenue received when selling the additional output.
 - c. The demand for capital.
 - d. Both b. and c.

5. The marginal revenue product of natural resources refers to _____.
 - a. The additional units produced when employing another unit of the resource.
 - b. The additional revenue received when selling the additional output.
 - c. The demand for capital.
 - d. Both b. and c.

6. What effects can unemployment payments have on the market supply of labor?
 - a. Unemployment benefits are the result of changing demographics and don't impact the supply for labor.
 - b. Unemployment benefits impact the market demand of labor.
 - c. They may provide an incentive to stay unemployed.
 - d. None of the above.

7. The demand for a factor of production equals its marginal revenue product is true for which factor of production?
 - a. Labor
 - b. Capital
 - c. Natural Resources
 - d. All of the above.