Marginal revenue product is defined as the change in total revenue that results from the employment of an additional unit of a resource. A producer wishes to determine how the addition of pounds of plastic will affect its MRP and profits. See the table below, and answer each of the questions.

|  |  |  |
| --- | --- | --- |
| Pounds of plastic (quantity of resource) | Number of assemblies (total product) | Price of assemblies ($) |
| 0 | 0 | - |
| 1 | 15 | 13 |
| 2 | 30 | 11 |
| 3 | 40 | 9 |
| 4 | 55 | 7 |
| 5 | 58 | 5 |

a. The marginal product of the 3rd pound of plastic is \_\_\_\_\_\_\_\_.

b. The marginal revenue product of the 3rd pound of plastic is \_\_\_\_\_\_.

c. The price of plastic is $135 per pound. To maximize profit, the producer should produce

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

d. The price of plastic is $135 per pound. To maximize profit, the producer should buy and use:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.