

QUESTION

1. The following table shows the production function of a firm. The firm has a fixed amount of capital and varies the amount of labor. The output is measured in units of a good.

Labor (L)	Output (Q)
1	10
2	20
3	30
4	40
5	50
6	60
7	70
8	80
9	90
10	100

ANSWER

1.1. Calculate the marginal product of labor (MP_L) for each level of labor. What is the relationship between the marginal product of labor and the average product of labor (AP_L)? How does the marginal product of labor change as the amount of labor increases?

1.2. Calculate the marginal product of capital (MP_K) for each level of capital. What is the relationship between the marginal product of capital and the average product of capital (AP_K)? How does the marginal product of capital change as the amount of capital increases?

1.3. Calculate the marginal product of capital (MP_K) for each level of capital. What is the relationship between the marginal product of capital and the average product of capital (AP_K)? How does the marginal product of capital change as the amount of capital increases?

1.4. Calculate the marginal product of capital (MP_K) for each level of capital. What is the relationship between the marginal product of capital and the average product of capital (AP_K)? How does the marginal product of capital change as the amount of capital increases?

Labor (L)	Output (Q)
1	10
2	20
3	30
4	40
5	50
6	60
7	70
8	80
9	90
10	100

1.5. Calculate the marginal product of capital (MP_K) for each level of capital. What is the relationship between the marginal product of capital and the average product of capital (AP_K)? How does the marginal product of capital change as the amount of capital increases?

1.6. Calculate the marginal product of capital (MP_K) for each level of capital. What is the relationship between the marginal product of capital and the average product of capital (AP_K)? How does the marginal product of capital change as the amount of capital increases?

Labor (L)	Output (Q)
1	10
2	20
3	30
4	40
5	50
6	60
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8	80
9	90
10	100