

4. Nimbus, Inc., makes brooms and then sells them door-to-door. Here is the relationship between the number of workers and Nimbus's output during a given day:

Workers	Output	Marginal Product	Total Cost	Average Total Cost	Marginal Cost
0	0		200	0	
1	20	20	300	15	5
2	50	30	400	8	3.33
3	90	40	500	5.5	2.5
4	120	30	600	5	3.3
5	140	20	700	5	5
6	150	10	800	5.3	10
7	155	5	900	5.8	20

a. to product one more unit most to maximize the product is at 3 after that it decrease
 c. cost that maximize the output by lowest cost at 4, 5 worker

a. Fill in the column of marginal products. What pattern do you see? How might you explain it?

b. A worker costs \$100 a day, and the firm has fixed costs of \$200. Use this information to fill in the column for total cost.

c. Fill in the column for average total cost. (Recall that $ATC = TC/Q$.) What pattern do you see?

d. Now fill in the column for marginal cost. (Recall that $MC = \Delta TC / \Delta Q$.) What pattern do you see?

5. You are the chief financial officer for a firm that sells gaming consoles. Your firm has the following average-total-cost schedule:

Quantity	Average Total Cost
600 consoles	\$300
601	301

Your current level of production is 600 consoles, all of which have been sold. Someone calls, desperate to buy one of your consoles. The caller offers you \$550 for it. Should you accept the offer? Why or why not?

total cost at 600 = 180,000
 601 = 180,900

so you should not accept the offer