

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 <i>Q</i>	Marginal Product	Total Cost	Average Total Cost	Marginal Cost	TFC	TC
0	0		0	0		0	
1	20	20	20	1	1	0	
2	50	30	70	1.4	1.67	200	
3	90	40	160	1.78	2.22	200	
4	120	30	280	2.33	4	500	
5	140	20	480	3	7	600	
6	150	10	570	3.8	15	700	
7	155	5	725	4.64	31	800	

- Fill in the column of marginal products. What pattern do you see? How might you explain it?
 - 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.
 - Fill in the column for average total cost. (Recall that $ATC = TC/Q$.) What pattern do you see?
 - 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?

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c. Average cost keeps increasing - -

d. marginal cost keeps increasing and keep increasing higher

→ yes because if you sell more consoles, you will get average total cost unit \$301 and you will get profit from it.