

EE211 Section 1 Quiz 8 Answers

Name _____ Last 4 digits ID _____

Short-Run Equilibrium in the Competitive Market

Answers are in your lecture note (Perfect competitive Mkt)

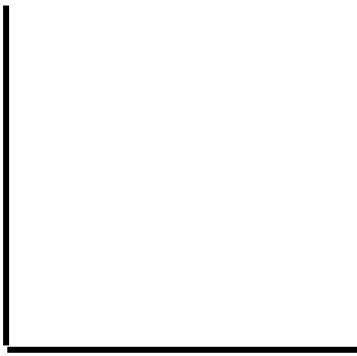
The Vaca Farm produces a quantity of milk, Q , and sells each unit at the market price, P . The farm's total revenue is $P \times Q$. Because the Vaca Farm is small compared with the world market for milk, it takes the price given by the market. This means that the price does not depend on how much milk the Vaca Farm produces and sells. **How much revenue does the farm receive for the typical gallon of milk? How much additional revenue does the farm receive if it increases the production of milk by 1 gallon?**

Quantity (Q)	Price (P)	Total Revenue ($TR = P \times Q$)	Average Revenue ($AR = TR/Q$)	Marginal Revenue ($MR = \Delta TR/\Delta Q$)
1 gallon	\$ 6	\$ 6	\$6	
				\$6
2	6			
3	6			
4	6			
5	6			
6	6			
7	6			
8	6			

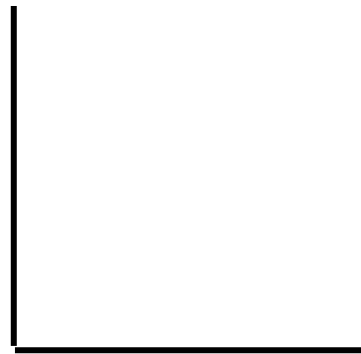
Total cost includes fixed costs and variable costs. The Vaca family wants to produce the quantity of milk that makes its profit as large as possible. **The farm maximizes profit by producing either 4 or 5 gallons of milk for a profit of \$7. The Vaca can find the profit-maximizing quantity by comparing the marginal revenue and marginal cost of each unit produced.**

Quantity (Q)	Total Revenue (TR)	Total Cost (TC)	Profit (TR-TC)	Marginal Revenue ($MR = \Delta TR / \Delta Q$)	Marginal Cost ($MC = \Delta TC / \Delta Q$)	Change in Profit (MR-MC)
0 gallons	\$0	\$3	-\$3			
				\$6	\$2	\$4
1	6	5				
2	12	8				
3	18	12				
4	24	17				
5	30	23				
6	36	30				
7	42	38				
8	48	47				

2. The firm is breaking even.

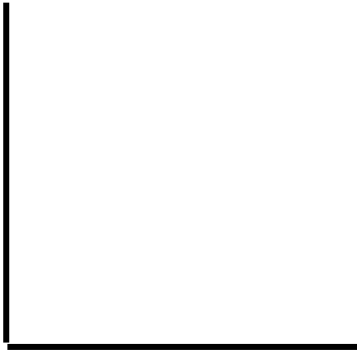


Market

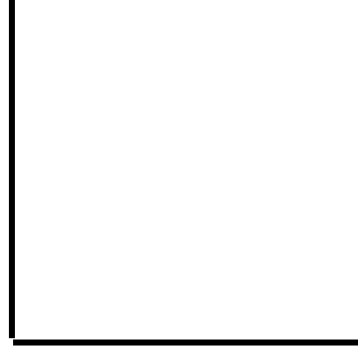


Firm

3. The firm is making profits.



Market



Firm
