

Answer on Question #39287 – Economics - Economics of Enterprise

Assignment

Use the following data to compute total variable cost, total fixed cost, average fixed cost and marginal cost for each output rate shown, also use the information to determine equation for each of the total and per-unit cost functions

Production Period	Rate of output (Q)	Total cost (Tc)
1	10	1,800
2	0	1,000
3	4	1,320
4	2	1,160
5	7	1,560

Solution

Production Period	Rate of output (Q)	Total cost (Tc)	MC	FC	VC	AFC
1	10	1,800	-	1,000	800	100
2	0	1,000	80	1,000	0	-
3	4	1,320	80	1,000	320	250
4	2	1,160	80	1,000	160	500
5	7	1,560	80	1,000	560	142.8

Marginal cost $MC = (TC_2 - TC_1)/(Q_2 - Q_1)$

Total cost $TC = FC + VC$

Fixed cost $FC = TC(Q=0) = 1000$

Average fixed cost $AFC = FC/Q$

Variable cost $VC = TC - FC$

So,

$$TC = 1000 + 80Q$$

$$MC = TC' = 80$$

$$ATC = 1000/Q + 80$$

$$VC = 80Q$$

$$FC = 1000$$

$$AVC = 80$$

$$AFC = 1000/Q$$