

Module 58 Introduction to Perfect Competition

Discussion Questions:

What is the goal of a firm?

What do you call the money that a firm makes?

Numerical Example: Data from a flower business.

Quantity of flowers (in bunches)	Price	Total Revenue	Total Cost	Profit	
0	\$10	0	\$10	(\$10)	
1	\$10	\$10	\$15	(\$5)	
2	\$10	\$20	\$18	\$2	
3	\$10	\$30	\$27	\$3	
4	\$10	\$40	\$36	\$4	***max profit
5	\$10	\$50	\$47	\$3	

For perfectly competitive firms, price equals marginal revenue ($P=MR$)

Quantity of flowers (in bunches)	Price	Total Revenue ($P \times Q$)	Marginal Revenue ($\Delta TR / \Delta Q$)
1	\$10	\$10	
2	\$10	\$20	\$10
3	\$10	\$30	\$10
4	\$10	\$40	\$10

As long as marginal revenue is greater than marginal cost, the firm can add to profits by increasing output.

A firm maximizes profit at an output level at which

- 1.) Total revenue exceeds total cost by the greatest amount, $TR > TC$
- 2.) Marginal revenue equals marginal cost, $MR = MC$

Quantity of flowers (in bunches)	Price	Total Revenue	Marginal Revenue	Total Cost	Marginal Cost	Profit	
0	\$10	0		\$10		(\$10)	
1	\$10	\$10	\$10	\$15	\$5	(\$5)	
2	\$10	\$20	\$10	\$17	\$8	\$3	
3	\$10	\$30	\$10	\$26	\$9	\$3	
4	\$10	\$40	\$10	\$36	\$10	\$4	***max profit
5	\$10	\$50		\$47	\$17	\$3	

In-Class Assignment:

Part 1

Q	TR	TC	Total Profit
0	0	20	
1	30	40	
2	60	56	
3	90	76	
4	120	105	
5	150	130	
6	180	170	

Questions:

What do the abbreviations of Q, TR, and TC stand for?

Calculate total profits at every output level.

What quantity will maximize profits?

Part 2

Q	MR	MC
0		
1	30	20
2	30	16
3	30	20
4	30	29
5	30	30
6	30	40

Questions:

What do the abbreviations Q, MR, and MC stand for?

Define MR and MC.

Based on the optimal output rule, what quantity will maximize profits?

Are there any conditions for which this will not be true?

