

Université de Bejaia
Département des sciences économiques
Master 1 EI
MICROECONOMIE APPROFONDIE

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Série d'exercices

1. Qu'est-ce qu'un marché concurrentiel ?
2. Quel est l'effet de la variation du prix sur l'offre ? sur la demande ?
3. Comment le marché s'adapte-t-il si le prix initial est supérieur au prix d'équilibre ? Décrivez comment vont réagir l'offre et la demande dans ce cas.
4. Comment la quantité et le prix d'équilibre s'adaptent-ils à une modification de la courbe de demande ?
5. Pourquoi parle-t-on de gains à l'échange dans le cas de marchés concurrentiels ?
6. En quoi le marché concurrentiel permet-il une bonne allocation des ressources ?

Exercice 1

Un marché de concurrence pure et parfaite composé de 50 firmes, opère sous les fonctions de demande et d'offre globales suivantes :

$$D = -20p + 2050 \quad ; \quad S = 10p - 50$$

Le coût total supporté par toutes les firmes est de la forme : $CT = 5q^2 + 10q + 50$.

1. Calculez la quantité et le prix d'équilibre du marché.
2. A quelle prix et quantité, une firme sera-t-elle rentable ?

Exercice 2

Suppose there is a perfectly competitive industry where all the firms are identical with identical cost curves. Furthermore, suppose that a representative firm's total cost is given by the equation $TC = 100 + q^2 + q$,

where q is the quantity of output produced by the firm. You also know that the market demand for this product is given by the equation $p = 1000 - 2q$, where q is the market quantity. In addition you are told that the market supply curve is given by the equation $p = 100q$.

1. What is the equilibrium quantity and price in this market given this information?
2. The firm's MC equation based upon its TC equation is $MC = 2q + 1$. Given this information and your answer in part (1), what is the firm's profit maximizing level of production, total revenue, total cost and profit at this market equilibrium? Is this a short-run or long-run equilibrium? Explain your answer.
3. Given your answer in part (2), what do you anticipate will happen in this market in the long-run?
4. In this market, what is the long-run equilibrium price and what is the long-run equilibrium quantity for a representative firm to produce? Explain your answer.
5. Given the long-run equilibrium price you calculated in part (4), how many units of this good are produced in this market?

Exercise 3

In a perfectly competitive market, there are 10 firms operating, each one has the following total cost function: $TC_i = q_i^2$.

The market is also characterized by the following demand function: $q = 100 - 20p$.

Compute:

1. The short run supply curve of the firm.
2. The short run supply curve of the industry.
3. Price and Quantity at the equilibrium.

4. The level of production and the profit realized by one firm in the short run