Université de Bejaia
Département des sciences économiques
Master 1 EI

MICROECONOMIE APPROFONDIE

Dr. Aïssa MOUHOUBI

Série d'exercices

Exercice 1

Suppose the demand for a product is given by $p = -0.8q + 150$, and the supply for the same product is given by $p = 5.2q$. For both functions, q is the quantity and p is the price, in dollars.

1. Find the equilibrium point.
2. Find the consumer surplus at the equilibrium price.
3. Find the producer surplus at the equilibrium price.

Exercice 2

The tables below show information about the demand and supply functions for a product. For both functions, qq is the quantity and pp is the price, in dollars.

q	0	100	200	300	400	500	600	700
p	70	61	53	46	40	35	31	28
p	14	21	28	33	40	47	54	61

1. Which is which? That is, which table represents demand and which represents supply?
2. What is the equilibrium price and quantity?
3. Find the consumer and producer surplus at the equilibrium price.

Exercice 3

The demand for milk in Algeria is given by $Q_D = 150 - 5p$ and the supply of the same product is $Q_S = -400 + 17p$, where Q is the quantity measured in millions of liters per month and p is measured in dinars per litre.

1. Calculate the price and the equilibrium quantity in the market and the consumer and producer surplus values.
2. What is the impact on the total surplus when introducing a tax of 10 for each liter of milk sold?
3. Determine the individual surpluses of economic agents (consumers, producers and the State). What is the difference between the total surplus before taxation and the total surplus after taxation ?
    1. Represent your answers graphically.