Assignment

Suppose that the price per unit is of a cellphone on the world market is 1 USD. Consider the following economy where the domestic supply of cellphones is given by $Qs = 10p$, the demand for cellphones is $Qd = 60-10p$ where p is the domestic price. How many cellphones does the whole country produce and consume in autarky and at what price?

If there is free trade, how many cellphones will be imported?

Suppose there is a quota which is imposed on imports so the quantity imported is restricted to 10 units only. Calculate the specific tariff that would achieve the same level of imports of 10 units.
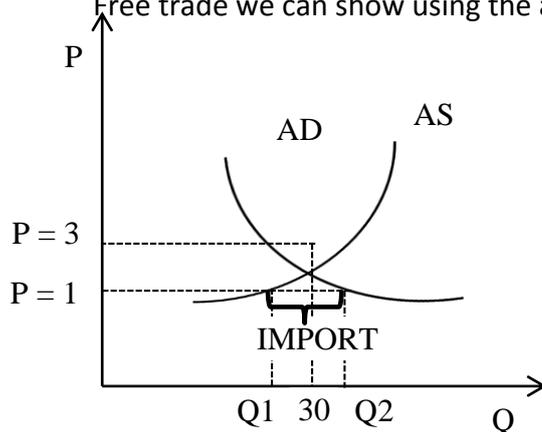
Solution

First of all we can calculate the price and the quantity of cellphones that can be produce and consume in autarky:

$$Qs = Qd$$
$$10p = 60-10p$$
$$20p = 60$$
$$p = 3$$
$$Q = 10p = 60-10p = 30$$

So, we can buy 30 units of a cellphone at price that equals 3 USD.

Free trade we can show using the appropriate graph

So, we can calculate the volume of import:

IMPORT = Q2 – Q1 = 60 – 10*1 – 10*1 = 40 units, where 1 – is world market price (pw)

The next step is to calculate new price for import after imposing the tariff:

$$60 – 10*p1 – 10*p1 = 10$$
$$60 – 20*p1 = 10$$
$$20*p1 = 50$$
$$p1 = 2.5$$

The tariff is:

Tariff = p1 – pw = 2.5 – 1 = 1.5 USD

http://www.assignmentexpert.com/