4.10   *Consider a pool market for electrical energy that is supplied by two generating companies whose cost functions are:*

$$C_A = 36 \cdot P_A \, [\$/h]$$
$$C_B = 31 \cdot P_B \, [\$/h]$$

The inverse demand curve for this market is estimated to be:

$$\pi = 120 - D \, [\$/MWh]$$

Assuming a Cournot model of competition, use a payoff table to calculate the Nash equilibrium point(s) of this market (price, quantity, production and profit of each firm). We assume P_A max and P_B max equal to 35 MW.

Each cell contains four pieces of information arranged in the following format:

D	Ω_A
Ω_B	π

Where:
π :price [\$/MWh]; D: demand [MWh]; Ω_A : profit made by firm A [\$]; Ω_B :profit made by firm B [\$]

	5	10	15	20	25	30	35
5	D Ω_A Ω_B π						
10							
15							
20							
25							
30							
35							

4.11 *Write and solve the optimality for problem 4.10.*