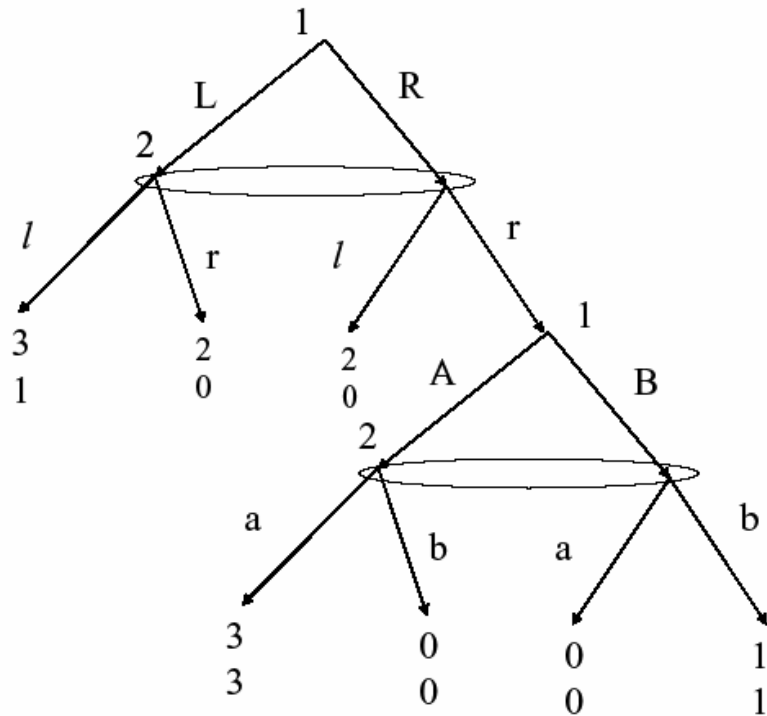


**Clase Auxiliar N° 6**  
**Economía Aplicada a la Gestión**  
**Bimestre Julio-Agosto 2007**

Pregunta 6

Para el siguiente juego, encuentre todos los equilibrios en estrategias puras perfectos en el subjuego.



### Answer to Problem 1

This game has two subgames. One subgame is the game as a whole and the other is the subgame after players 1 and 2 choose to play R and r, respectively. In this last subgame we have 2 pure Nash equilibria (NE) which are  $(A, a)$  and  $(B, b)$ .

To compute the subgame-perfect equilibrium (SPE) we have to check if the strategy profile is a NE in every subgame. Thus, to obtain the SPE, we have to assume that outcome of the smaller subgame will be one of those NE.

When players 1 and 2 play  $(A, a)$  in the smaller subgame, the reduced form of the game is:

	$l$	$r$
$L$	3,1	2,0
$R$	2,0	3,3

There are two NE in this case  $(L, l)$  and  $(R, r)$ . Therefore, the SPE are  $(LA, la)$  and  $(RA, ra)$ .

When they play  $(B, b)$  in the smaller subgame, the reduced form of the game is:

	$l$	$r$
$L$	3,1	2,0
$R$	2,0	1,1

In this case there is just one NE  $(L, l)$ . Therefore, the SPE is  $(LB, lb)$ .

Therefore, this game has three SPE:  $(LA, la)$ ,  $(RA, ra)$  and  $(LB, lb)$ .