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Ecn 200C – Micro Theory – Professor Giacomo Bonanno

ANSWERS TO PRACTICE PROBLEMS 5

1. In both games "pay" is strictly dominated by "not pay". After eliminating it, "not kill" becomes strictly dominated. Thus the iterated dominant strategy equilibrium is (not pay,kill).

2. For Yvette the strategies other than b, ac and d (the shortest paths) are weakly dominated by one of b or ac or d). For Zoe b is weakly dominated by ba and d is weakly dominated by cd. After the first round of elimination we are left with

		ZOE		
		ba	ca	cd
Yvette	b	Zoe wins	Yvette wins	Yvette wins
	ac	Zoe wins	Zoe wins	Zoe wins
	d	Yvette wins	Yvette wins	Zoe wins

Now for Yvette ac is weakly dominated by b (and also by d) and for Zoe ca is weakly dominated by cd (and also by ba). After the second round of elimination we are left with

		ZOE	
		ba	cd
Yvette	b	Zoe wins	Yvette wins
	d	Yvette wins	Zoe wins

No more eliminations are possible. Hence the prediction is that Yvette will either take route b or d, while Zoe will either take route ba or cd.

3. **GAME B.** First delete 1 for Antonia and 2 for Bob.

Antonia		Bob	
		0	1
0	0	0 , 5	0 , 10
2	2	0 , 5	−5 , 0
3	3	−5 , 0	10 , 0
4	4	10 , 0	−5 , 0

Then delete 2 for Antonia (dominated by 0). Then delete 0 for Bob. Then delete 0, 2 and 4 for Antonia. Thus the iterated dominant strategy equilibrium is (3,1).

GAME C. First round: delete 2 for Antonia and 0 and 2 for Bob. Second round: delete 6 for Antonia. Thus the iterated dominant strategy equilibrium is (4,1).