



Homework 5

due October 09, 2018

Homework must be on the instructor's desk at K9 by 15:10 sharp. Submissions at any other time or manner will be ignored. Any paper which does not resemble work by a student of a world-class institution (not in A4 sheets, not clean, illegible, unnamed, unstapled, unlabeled tasks, final results not in boxes etc.) will be penalized with up to 50 points at the discretion of the grader. Do not submit your work in plastic covers. Copying in homework will be penalized with a 0 in that assignment and an additional penalty of 10 points in the course homework average. Students who give their homework away for others to copy from will be penalized with 0 in that assignment and a penalty of 30 points in their course homework average. Repeated offenders will be terminated from the course.

1. Consider the following sequential game between player 1 who plays first and player 2.

P1 \ P2	L	R
T	8, 5	4, 3
B	1, 2	6, 7

If P2 had a method that could permanently reduce his own payoff by x units for only the strategy L, would he want to use this method before the game? Explain. [30p]

2. Firm 1 and firm 2 have one job opening each and they offer wages w_1 and w_2 such that $w_0 < 0.5w_1 < w_2 < 2w_1$. There are two risk-neutral workers, each of whom can apply to only one firm. Workers will simultaneously decide to which firm they will apply. If only one worker applies to a given firm, that worker gets the job; if both workers apply to the same firm, one worker is hired at random with probability 50% and the other worker receives w_0 .

(a) Find the NE in pure strategies in the game that the two workers play. [15p]

(b) Find the NE in mixed strategies. [15p]

(c) Assume now, that one of the workers has the opportunity to apply for the job first, and $w_0 = 0 < w_1 < w_2 < 2w_1$. Find the SPNE. [15p]

3. N students have submitted identical homework papers and are invited to the professor's office. Homework rules are the same with IE (read above). Students are asked to reveal who copied from whom or else they will all receive the 30 points penalty in their homework average. Let assume that each student will prefer to tell the truth rather than lie if her or his payoff is not affected and that students' interests are limited on their payoff from this assignment only. Also, for the professor to infer who copied from whom student's statements should not be contradicting. Explain if the incentive mechanism used in the homework will be successful in revealing who copied from whom. [25p]

Good afternoon!

As a market economist, it is important for you to follow the news. All serious business people start their day by getting updated: politics, business, tech, art and culture, international and sports. Read news for 20 min a day (titles + 3-4 articles) from an outlet that you mostly agree with. Read 20 min a day from a news outlet that you hate. Expose yourself to different points of view and learn to step outside your comfort zone. If you do not understand a topic or need to catch up, use an explainer: Vox is the one I use (Website and YouTube). You do not need to mostly read the NY Times or the Economist. If you find them boring, there are many other outlets that present the news in a lighter way. For example, HBO's show Last Week Tonight presents current issues in a comic way (strong language is occasionally used – viewer discretion is advised) or you can find the ones you like. If you do not have time, cut it from something else: gaming or social networking, for instance. It is much more likely that you will be able to hold a conversation with a serious business (and not only) person if you can talk about the latest business or political developments than if you talk to them about Fortnite!

Kosmas

Estimated completion time: 60 min

Difficulty level (normalized to UoL standards): 1. 4/5 2. 4/5 3. 3/5

Direct your homework questions to Valeriya Popova