

Game Theory, Fall 2022

Problem Set 7

Due on Nov 14 in class

1. ST 10.2.
2. ST 10.7.
3. ST 10.8.
4. ST 10.9.
5. Consider the infinitely repeated prisoners' dilemma with discounting factor $\delta \in (0, 1)$. The stage game is in Figure 1. They play EE in the first period. At any history

	E	S
E	2, 2	-1, 3
S	3, -1	0, 0

Figure 1: The prisoners' dilemma

$h = (a^1, \dots, a^{t-1})$, if they have played EE for all but at most one period, they continue to play EE ; otherwise, they play SS . Write down this strategy profile formally and check whether it is a subgame perfect equilibrium for some $\delta \in (0, 1)$?