ECON2003 总复习

#micro

本页为为准备孙广振老师而整理的较全的课程笔记，希望对所有同学有所帮助。由于是为了备考期末考试，因此针对性较强。

Section 1 Preliminary Game Theory

One-short games: finding Pure-Strategy Nash Equilibrium and Mixed-Strategy Nash Equilibrium

How to find Pure-Strategy Nash Equilibrium?

How to find Mixed-Strategy Nash Equilibrium

One of the most important fact of Mixed-Strategy Nash Equilibrium is that it is about *possibility*

Sometimes a game could not have Pure-Strategy Nash Equilibrium, but it is always possible to get MSNE in a well-defined game (from lecture note by Professor Sun)

And during the class, we have a very interesting but complicated example see here: Complicated NE question

Also noted that the number of Mixed-Strategy Nash Equilibrium is always **odd-number**

Example

In this case:

	Heads	Tails

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Heads	1,-1	-1,1
Tails	-1,1	1,-1

We found that there is no such Pure-Strategy Nash Equilibrium . So we assume the player randomly chooses heads or tails, so the probability would be 1/2 heads and 1/2 tails.

Simple Conclusion

The Mixed-Strategy Nash Equilibrium is always come with the **probability**.

Reference