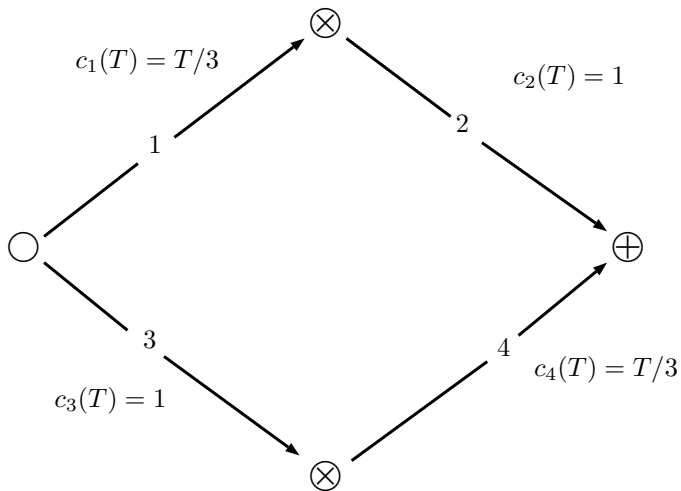


# Advanced Microeconomics

P. v. Mouche

Exercises 5

**Exercise 1** Consider the following traffic network.



- Identify for each commuter the strategies.
- Further suppose that there are 2 commuters. Represent this game as a bimatrix game.
- Determine the Nash equilibria.

Short solutions.

*Solution 1* a. Strategy 1 is route choice  $\{1, 2\}$ . Strategy 2 is route choice  $\{3, 4\}$

b.  $\begin{pmatrix} 5/3; 5/3 & 4/3; 4/3 \\ 4/3; 4/3 & 5/3; 5/3 \end{pmatrix}$ .

c. This game has two Nash equilibria:  $(1, 2)$  and  $(2, 1)$ . In each Nash equilibrium each player has costs  $4/3$ .