

## Introduction to Game Theory

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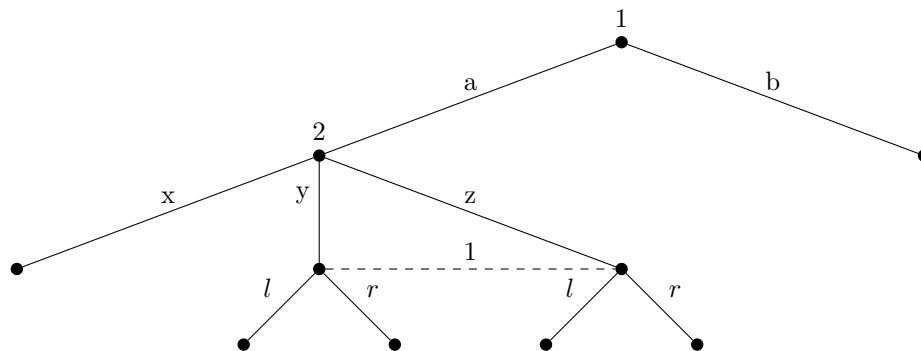
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### Exercise Sheet 8

Due: Monday, June 18, 2018

**Exercise 8.1** (Imperfect Information Games, 1+2+2+3 points)

Consider the following extensive form game with imperfect information:



- Is this a game of perfect or imperfect recall? Justify your answer.
- Specify the information partition  $\mathcal{I}_i$  for player 1 and 2.
- Specify player 1's experience record of the following histories:  $\langle a, x \rangle$ ,  $\langle a, y, l \rangle$ ,  $\langle a, z, r \rangle$
- Find the behavioral strategy of player 1 that is outcome-equivalent to her mixed strategy in which she plays  $(b, r)$  with probability 0.4,  $(b, l)$  with probability 0.1, and  $(a, l)$  with probability 0.5.

The exercise sheets may and should be worked on and handed in in groups of three students. Please indicate all names on your solution.