

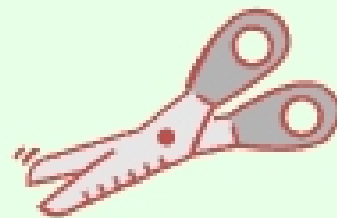
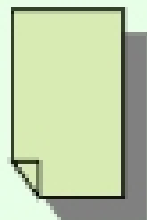
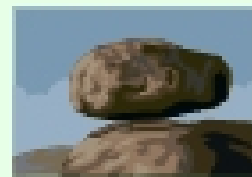
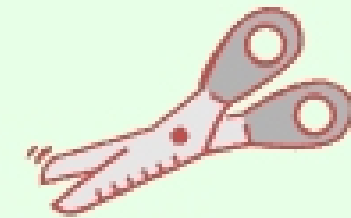
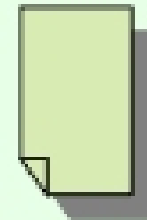
# CPS 296.1

## Normal-form games

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# Rock-paper-scissors

Column player aka.  
player 2  
(simultaneously)  
chooses a column



0, 0	-1, 1	1, -1
1, -1	0, 0	-1, 1
-1, 1	1, -1	0, 0

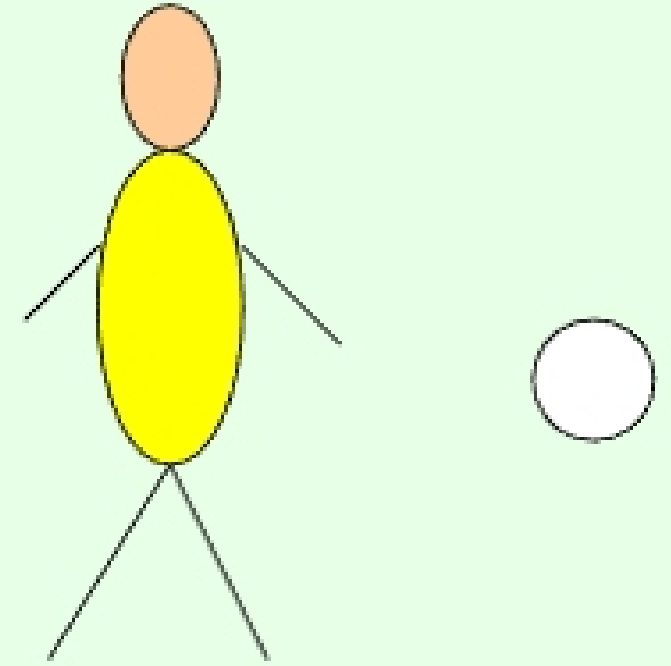
Row player  
aka. player 1  
chooses a row

A row or column is  
called an **action** or  
**(pure) strategy**

Row player's utility is always listed first, column player's second

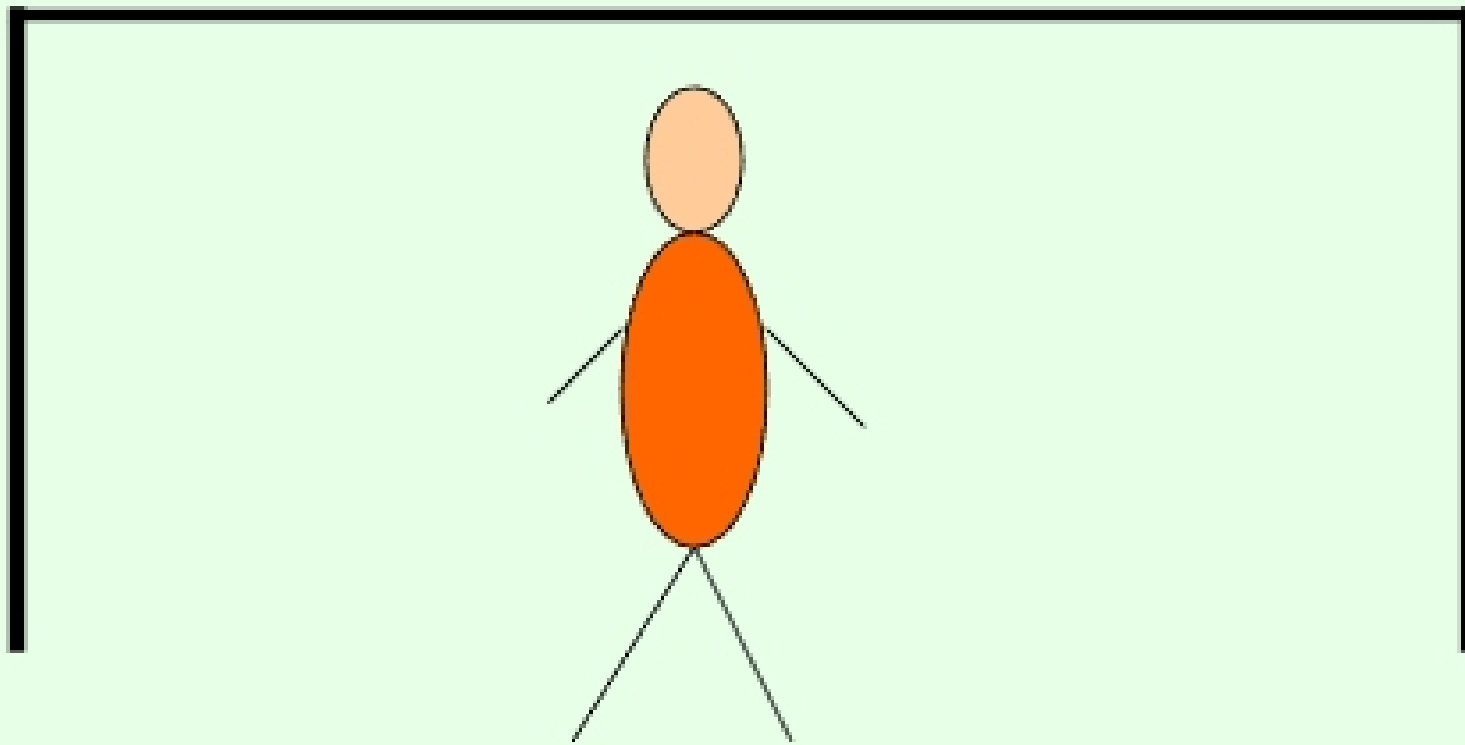
**Zero-sum** game: the utilities in each entry sum to 0 (or a constant)  
Three-player game would be a 3D table with 3 utilities per entry, etc.

# Matching pennies (~penalty kick)



L

R



L

R

	L	R
L	1, -1	-1, 1
R	-1, 1	1, -1