

**HOMEWORK 2** (due in class March 4)

**Problem 1.** Problem 1, page 39 from Dixit and Skeath.

**Problem 2.**

Consider the following matrix of outcomes for two players (Row and Column). The outcomes depend on which of the two actions ( $x$  vs.  $y$  and  $x^*$  vs.  $y^*$ ) each of the two players takes. The outcomes are expressed in US dollars, where K stands for “thousand” (i.e., \$300K means \$300,000).

	$x^*$	$y^*$
$x$	\$300K \$300K	\$500K \$0
$y$	\$0 \$500K	\$100K \$100K

Describe a real life situation in which the structure of payoffs would be as in the matrix above.

**Problem 3.**

Take the last four digits (denote them as  $k, l, m, n$  with  $n$  being the last digit) of your social security number and consider the following game:

	$x^*$	$y^*$
$x$	$k$ $k$	$m$ $l$
$y$	$l$ $m$	$n$ $n$

Now think about a real life situation where the structure of payoffs (utilities) is like in the game above. Describe this situation briefly. Make sure that it does make sense to assume that both players have only two actions available and that the order of payoffs in reality is like in the order of payoffs in the game.