

Game theory

Problem Set 1

1) Exercise 5.3

$$u(x, y) = x + \frac{1}{2}y$$

Any increasing function of u also works.

2) 16.1

	hard work	no work
hw	3,3	0,2
nw	2,0	1,1

3)

17.1

Game on left is not like PD because players preferences are different

Player 1 prefers (Y, X) to (X, X) to (X,Y) to (Y,Y), for example, unlike in

PD, which is (D, C) to (C, C) to

(D, D) to (C, D)

Game on the right is equivalent to PD

4) 18.1

	either	preferred
either	$\frac{1}{2}(H + L), \frac{1}{2}(H + L)$	L,H
preferred	H,L	S,S

we need $L < S < \frac{1}{2}(H + L)$.

5) 20.1

	L	R
T	a, a	b, b
B	c, c	d, d