P1)

	L	R
U	a, b	c, d
D	e, f	0, 0

a) U ED. $e > a$ $0 > c$

b) (U, L) no EIEED

i) $a > e$, $c > 0$, $b > d$

ii) $b > d$, $f > 0$ $a > e$.

c) (U, L) EN único.

c.1) $BR_1(L) = U$, $BR_2(U) = L$

$a \geq e$, $b \geq d$

c.2) No: $BR_1(L) = D$, $BR_2(D) = L$

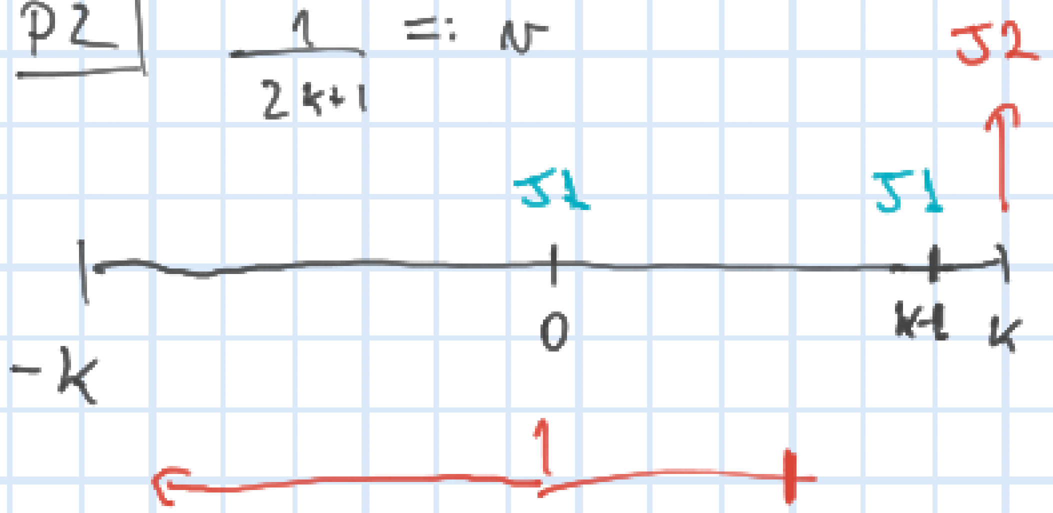
No: $e \geq a$ $\wedge$ $f \geq 0$

⋮

$(e < a \vee f < 0)$

c.3) ⋮ (Seguir análogamente).

P2) $\frac{1}{2k+1} =: v$



a) Dominadas?

$\boxed{0 \succ_{J1} k}$ Utilidades

$s_2 = k$ $\quad k \to \frac{1}{2}$, $0 \to U_0 > \frac{1}{2}$

$s_2 = k-1$ $\quad k \to \frac{1}{2k+1}$, $0 \to U_0 > \frac{1}{2}$

$\forall\ s_2 \neq 0 \quad U_1(0, s_2) > \frac{1}{2} \geq U(k, s_2)$

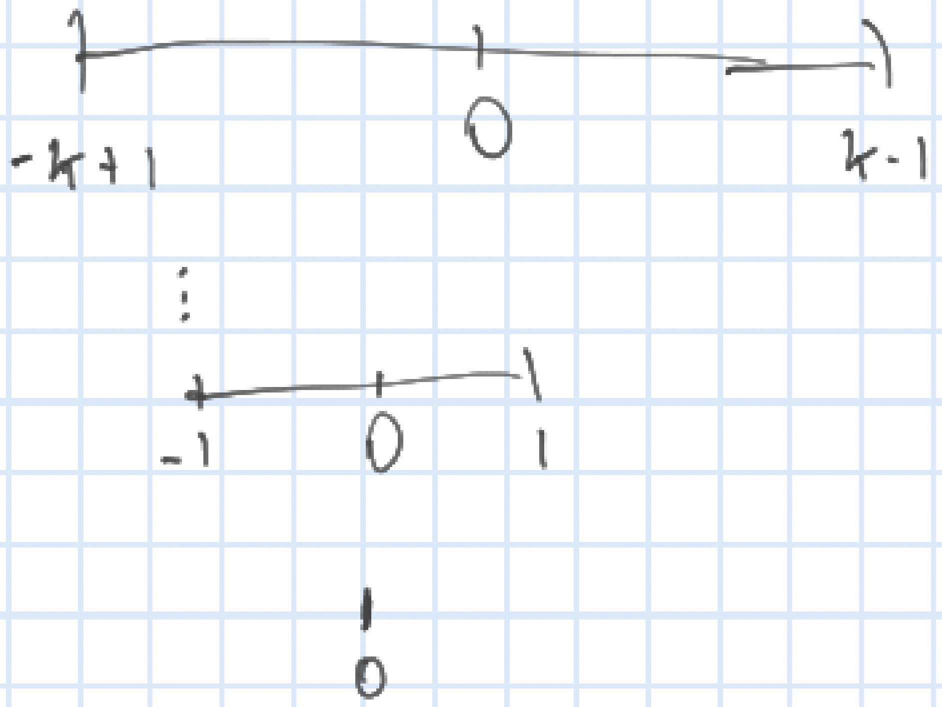
$s_2 = 0 \quad U_1(0, s_2) = \frac{1}{2} > U(k, s_2)$ //

$\boxed{0 \succ_{J1} -k}$

$k-1$ dominada?

No! //

b) EIEED



Sol $(0,0)$ EN.

$\boxed{\begin{matrix} (0,1) & \\ (1,0) & \text{No} \\ (-1,0) & \text{No} \\ (0,-1) & \end{matrix}}$

c) $s_2 > 0$, $BR_1(s_2) = s_2 - 1$

$s_2 < 0$, $BR_1(s_2) = s_2 + 1$

Todo EN sobrevive a EIEED. //

P3) $S_i = \{a, b\}$ $\qquad t(A) > T(A)$

a) $f^{EN} : [0,1] \to \{a, b\}$

$E_k \quad \forall i \quad f(i) \in \arg\max \{ i - T(A), -t(A) \}$

$$A = \int \mathbb{1}_{[f(j) = A]} (x) \, dx$$

b)

$i = 1 \qquad -T(A) > -t(A) \quad \forall A > 0$

$-T(0) = -t(0)$

$$\boxed{-T(A) \geq -t(A) \quad \forall A \geq 0}$$

$$\boxed{1 - T(A) > -t(A) \quad \forall A \geq 0}$$

$i > 0 \qquad i - T(A) > -t(A) \quad \forall A \geq 0$

$\forall i > 0 \quad a \succ_i b \quad \therefore \forall i > 0 \quad s_i^* = a.$

$\Rightarrow A = 1$

$\Rightarrow i = 0 \qquad 0 - T(1) > -t(1)$

$\Rightarrow s_0 = a$

$\therefore$ EIEED $\longrightarrow s_i^* = a$ EN.

$\therefore$ Es único.

c) $\max_{0 \leq c \leq 1} \underbrace{\int_c^1 i - T(1-c) \, di + c(-t(1-c))}_{U(c)}$

$U'(0) > 0$

$U(c) = \frac{1}{2}(1 - c^2) - T(1-c)(1-c) - c\,t(1-c)$

$U'(c) = -c - [-T'(1-c)(1-c) - T(1-c)] - [t(1-c) - c\,t'(1-c)]$

$U'(0) = T'(1) + T(1) - t(1) > 0$

$$\boxed{T'(1) > t(1) - T(1)}$$