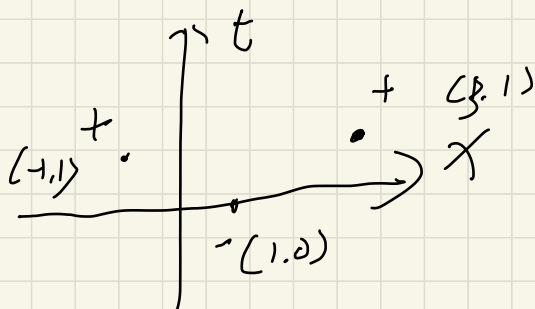


Q 2  
(a)



suppose there are so feasible weights  $w_0$

①  $3w_0 > 0$

②  $-w_0 > 0$  if  $w_0 \geq 0$ . ③ couldn't work

③  $w < 0$  if  $w_0 < 0$  ① couldn't work

Q 2  $w_0$  constraints

(b)  $\psi(x) = \begin{pmatrix} \psi_1(x) \\ \psi_2(x) \end{pmatrix} = \begin{pmatrix} x \\ x^2 \end{pmatrix}$

$x$	$\psi_1(x)$	$\psi_2(x)$	$t$	
-1	-1	1	1	assume for $w_1, w_2$ .
1	1	1	0	① $w_1(-1) + w_2 \cdot 1 > 0$
3	3	9	1	② $w_1 + w_2 < 0$
				③ $w_1 \cdot 3 + w_2 \cdot 9 > 0$

let  $w_1 = -2$   $w_2 = 1$

so ① =  $1 > 0$  ② =  $0 < 0$  ③ =  $20 > 0$