$f(x)$ en $[-1,1]$ como:

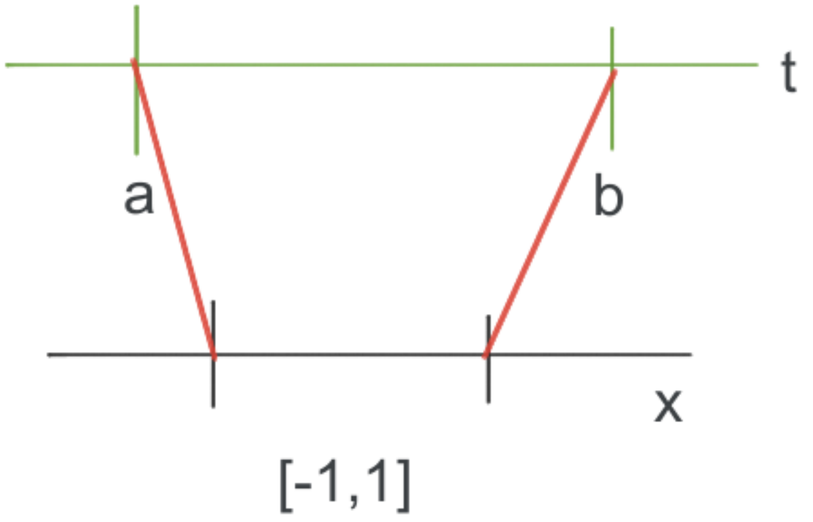
αβ

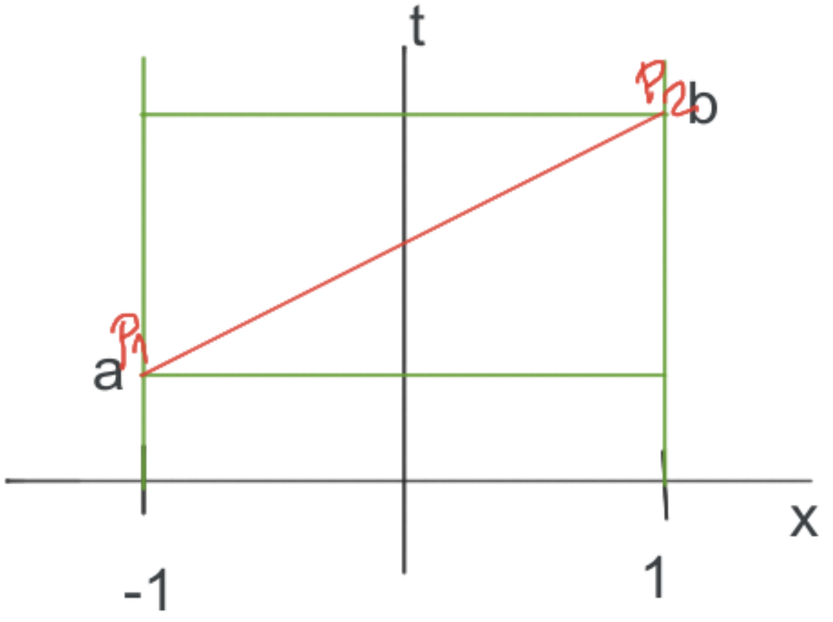
$$f(x) = g\left(\frac{(b+a)+x(b-a)}{2}\right), \qquad -1 \le x \le 1$$

donde

$$t = \frac{(b+a)+x(b-a)}{2}$$

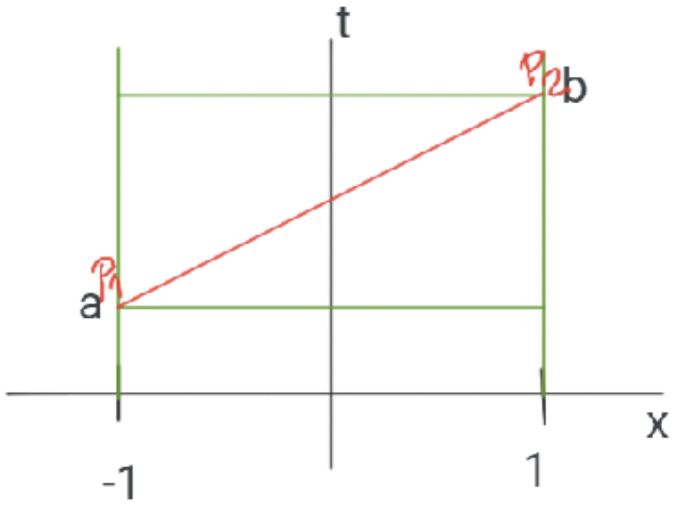
representa un cambio lineal de variable que permite aproximar $f(x)$ en $[-1,1]$.





α x + β = t

p1	-1	a
p2	1	b



$\alpha x + \beta = t$

p1	-1	a
p2	1	b

αβ

p1) $-\alpha + \beta = a$

p2) $\alpha + \beta = b$

$\beta = a+\alpha$

$\alpha + a + \alpha = b$

$2\alpha = b-a$

$\alpha = (b-a)/2$

$\beta = a+(b-a)/2$

$\beta = (b+a)/2$

$$t = \frac{(b+a)+x(b-a)}{2}$$

$(b-a)/2\ x + (b+a)/2 = t$