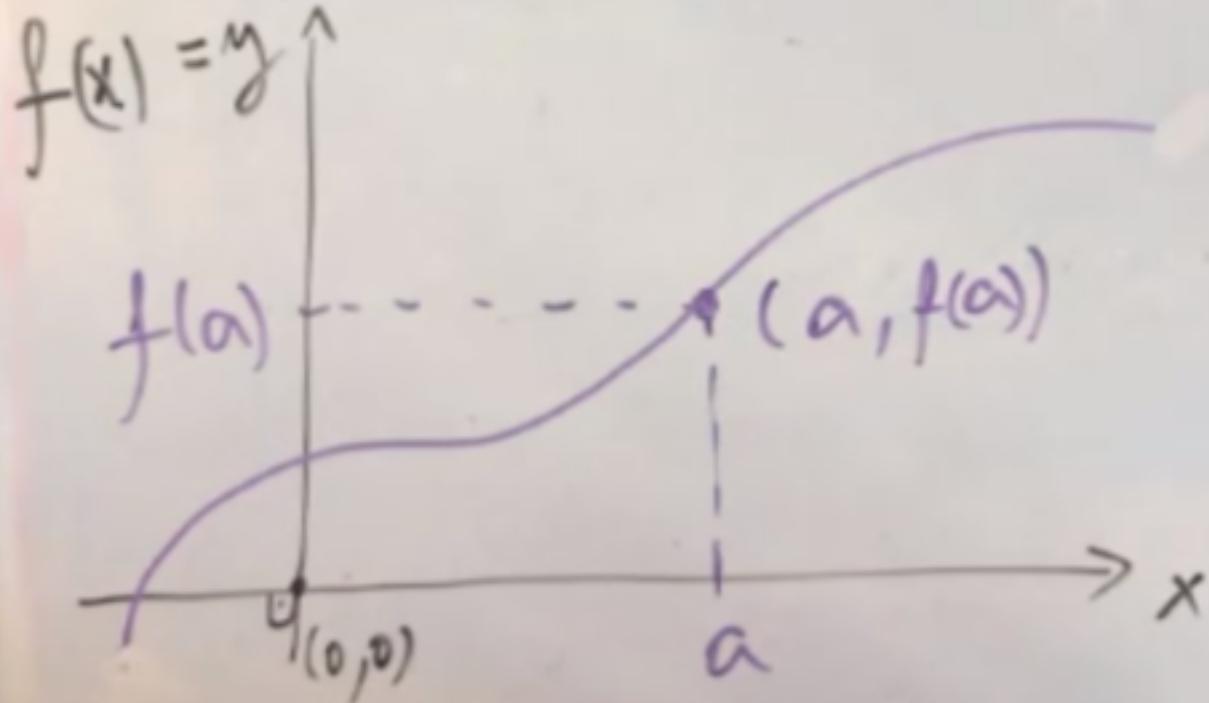


GRÁFICOS

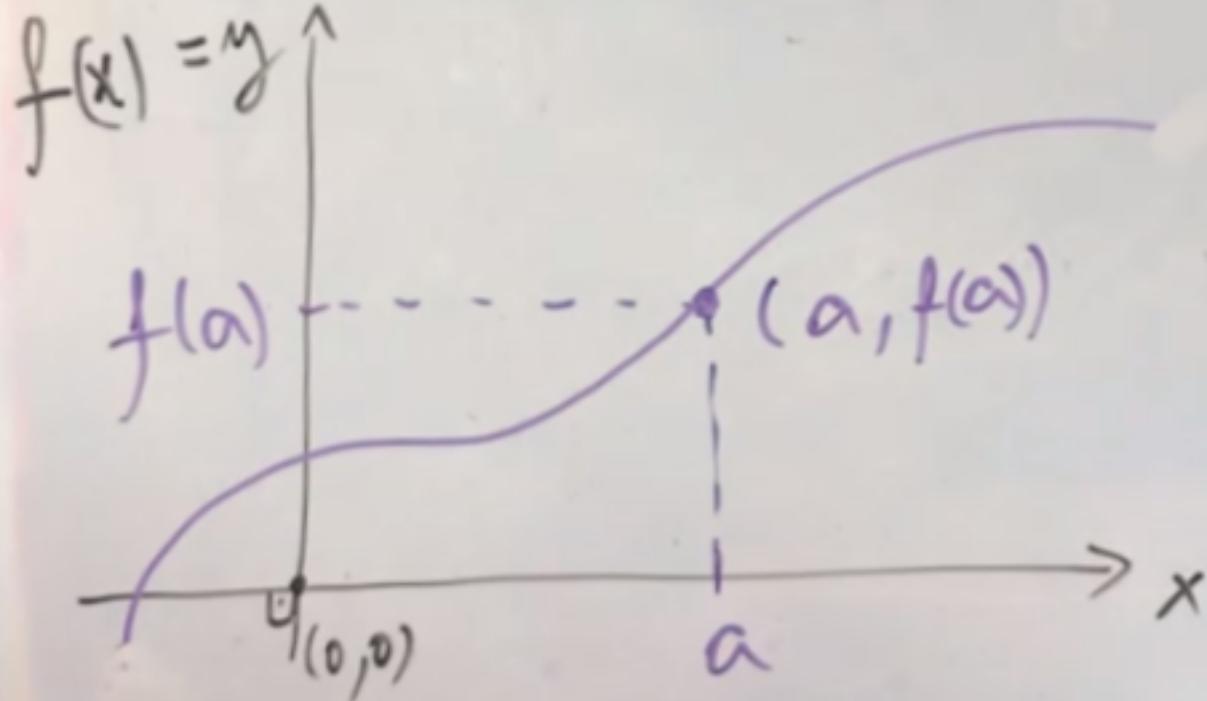
$(x, f(x))$: gráfico

$f: D_f \subset \mathbb{R} \rightarrow \mathbb{R} = CD_f$
 $[a, b] \cup [c, d]$ $\text{Im}_f \subset CD_f$

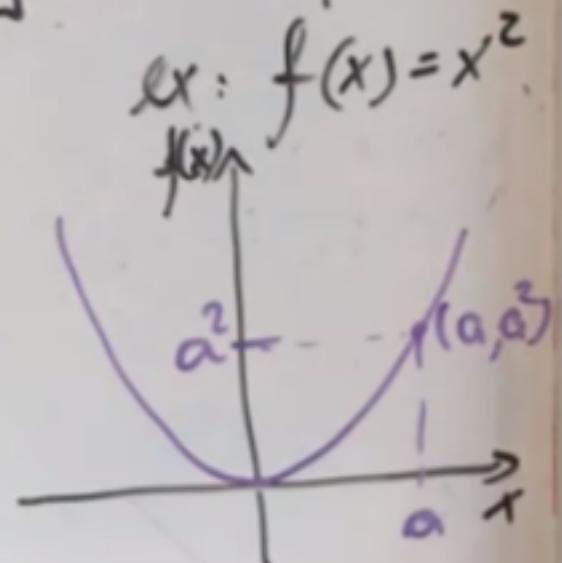


GRÁFICOS

$(x, f(x))$: gráfico



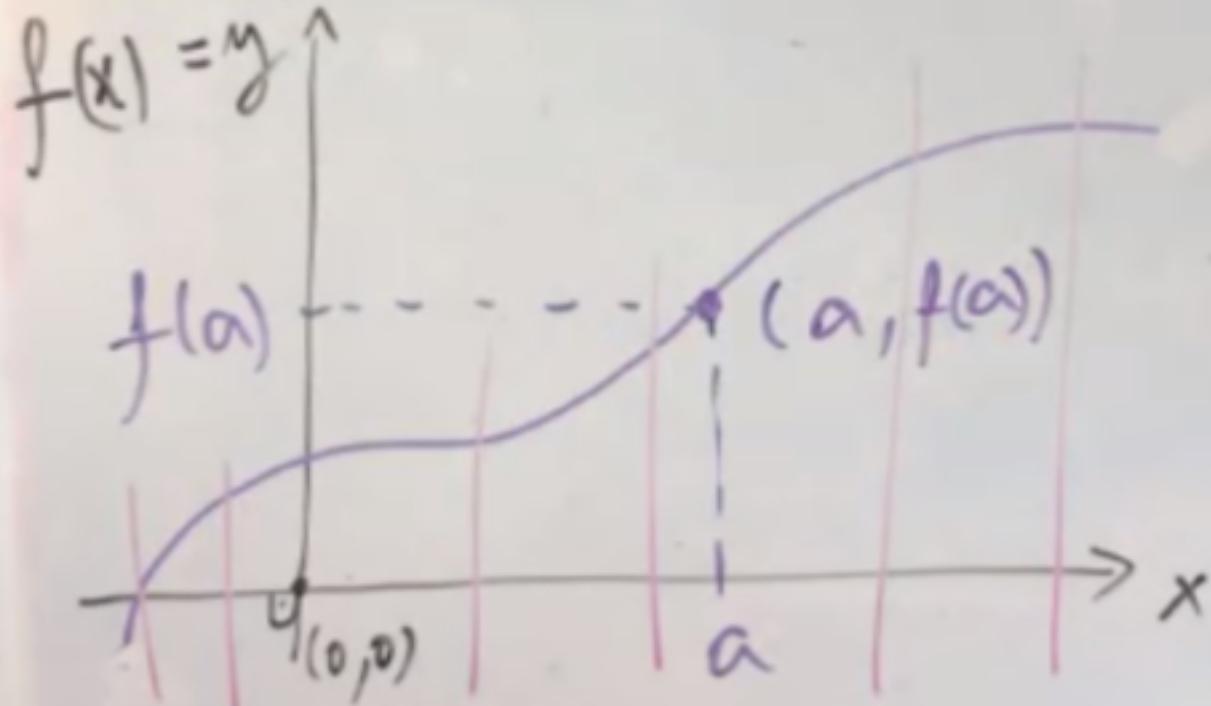
$f: D_f \subset \mathbb{R} \rightarrow \mathbb{R} = C_D_f$
 $[a, b] \cup [c, d]$ $\text{Im}_f \subset D_f$



⑧

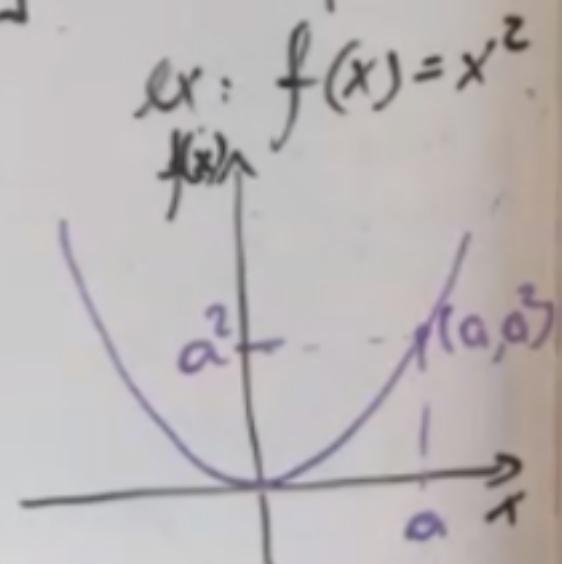
GRÁFICOS

$(x, f(x))$: gráfico



$$f: D_f \subset \mathbb{R} \rightarrow \mathbb{R} = CD_f$$

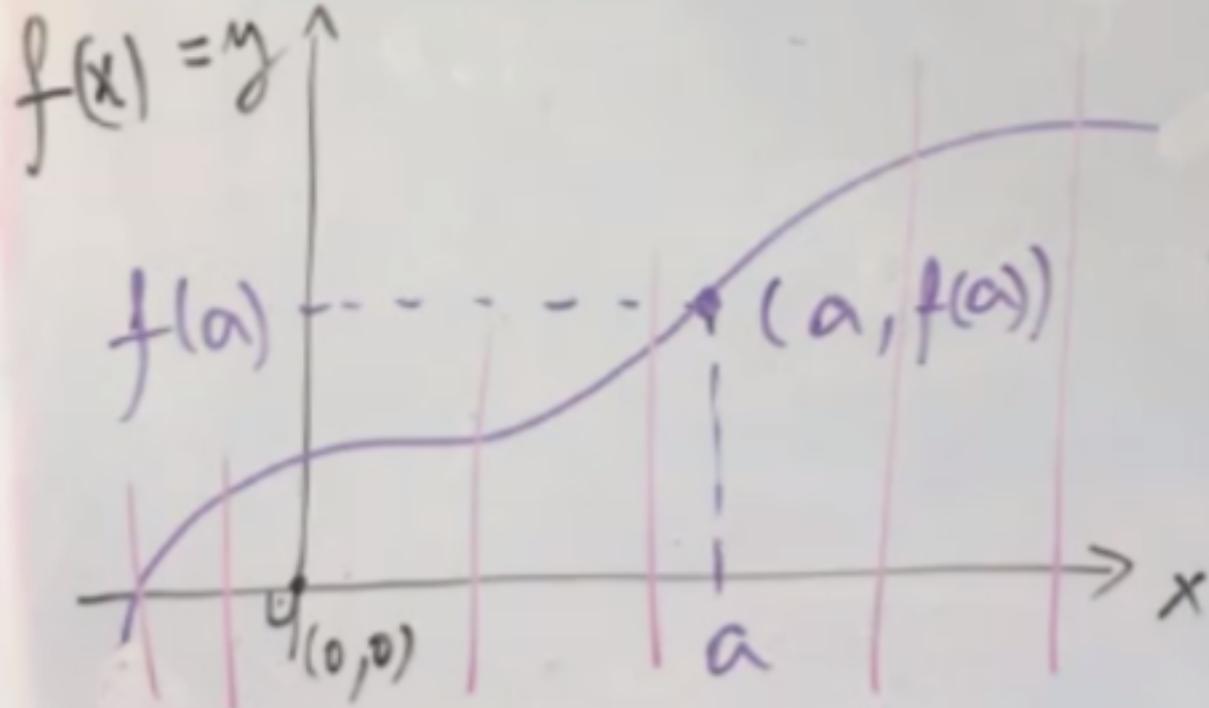
$$[a, b] \cup [c, d]$$

$$\text{Im}_f \subset CD_f$$


testo de recta vertical (Verifica si es una función) ⑧

GRÁFICOS

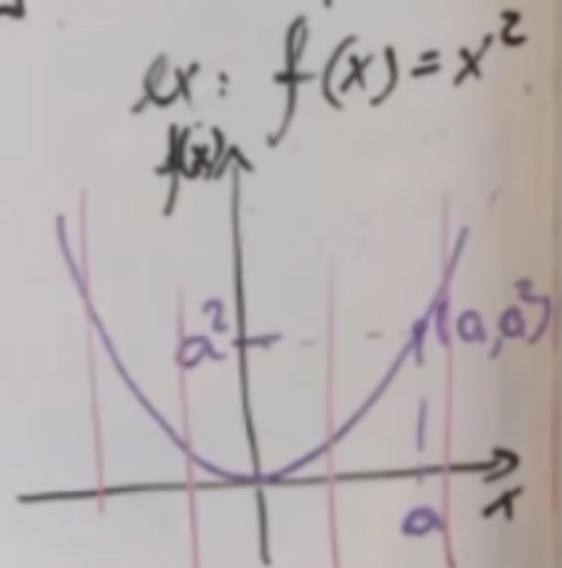
$(x, f(x))$: gráfico



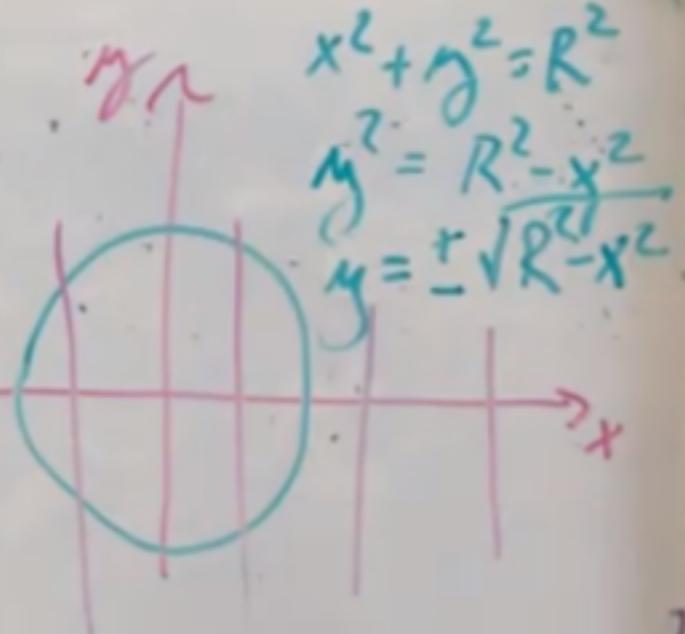
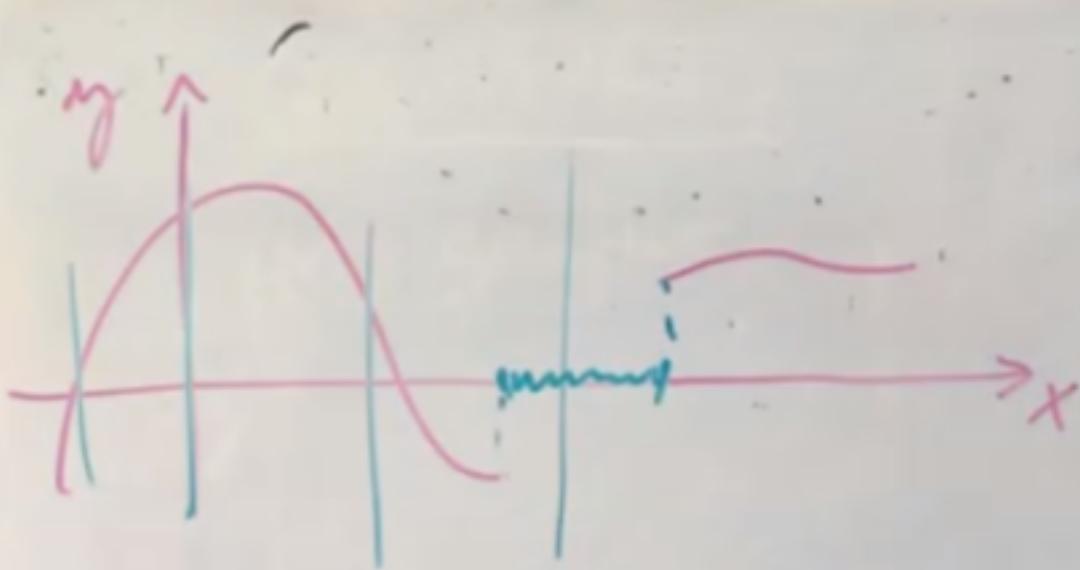
$$f: D_f \subset \mathbb{R} \rightarrow \mathbb{R} = C_D_f$$

$$[a, b] \cup [c, d]$$

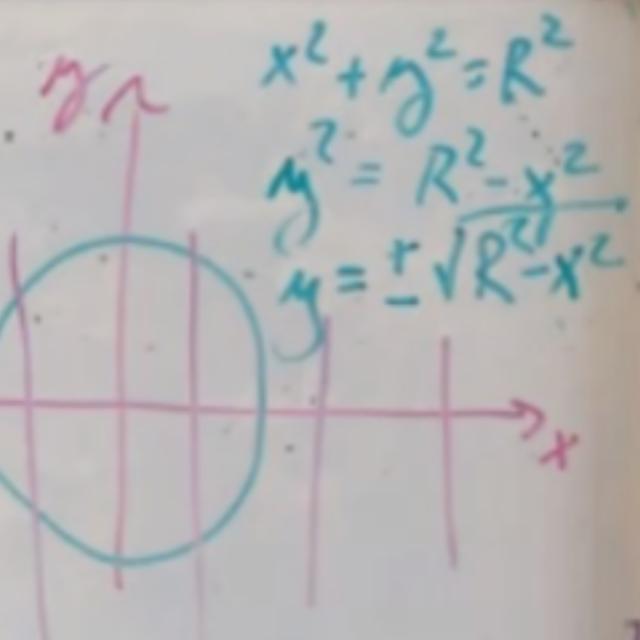
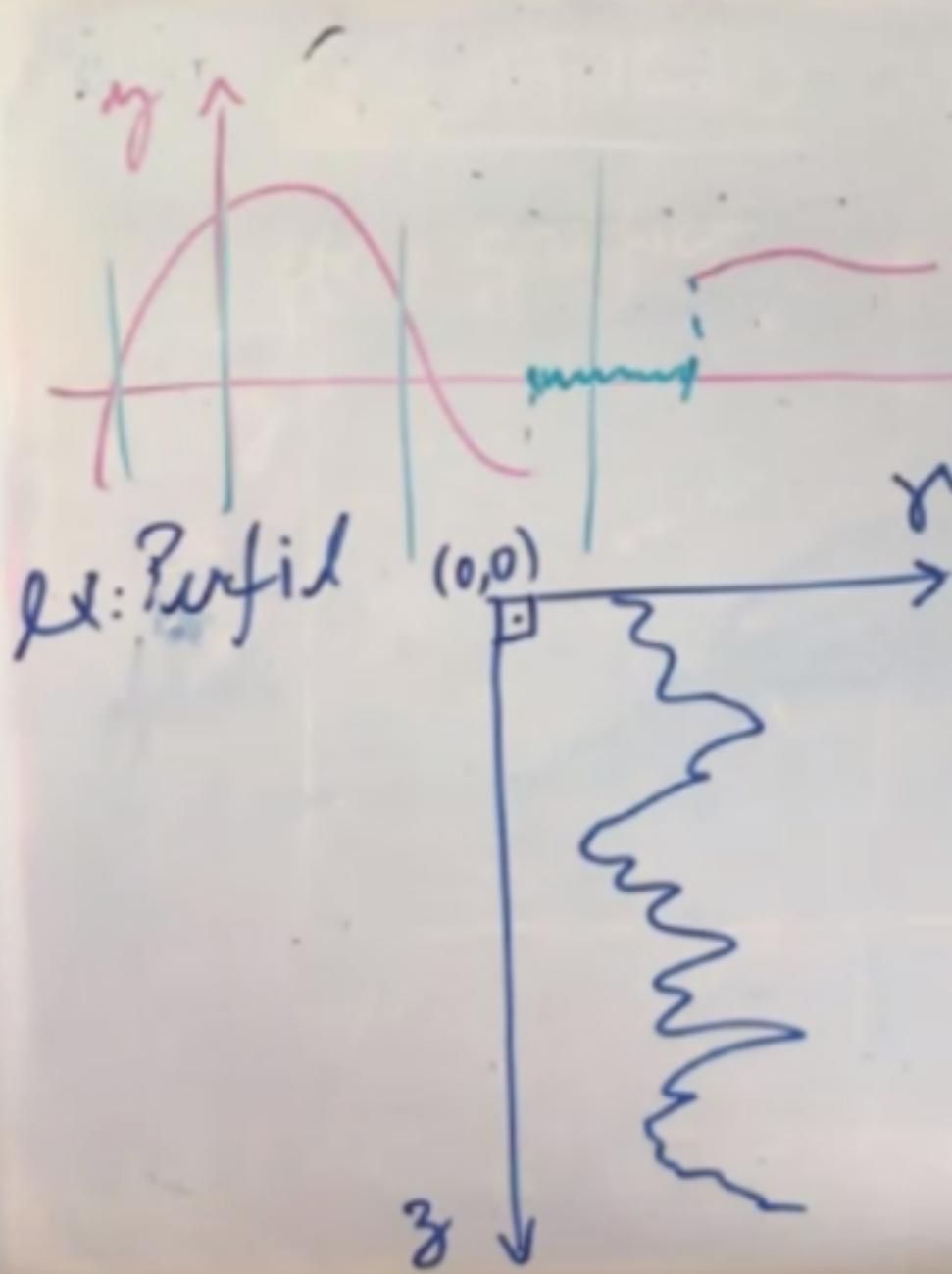
$$\text{Im}_f \subset D_f$$



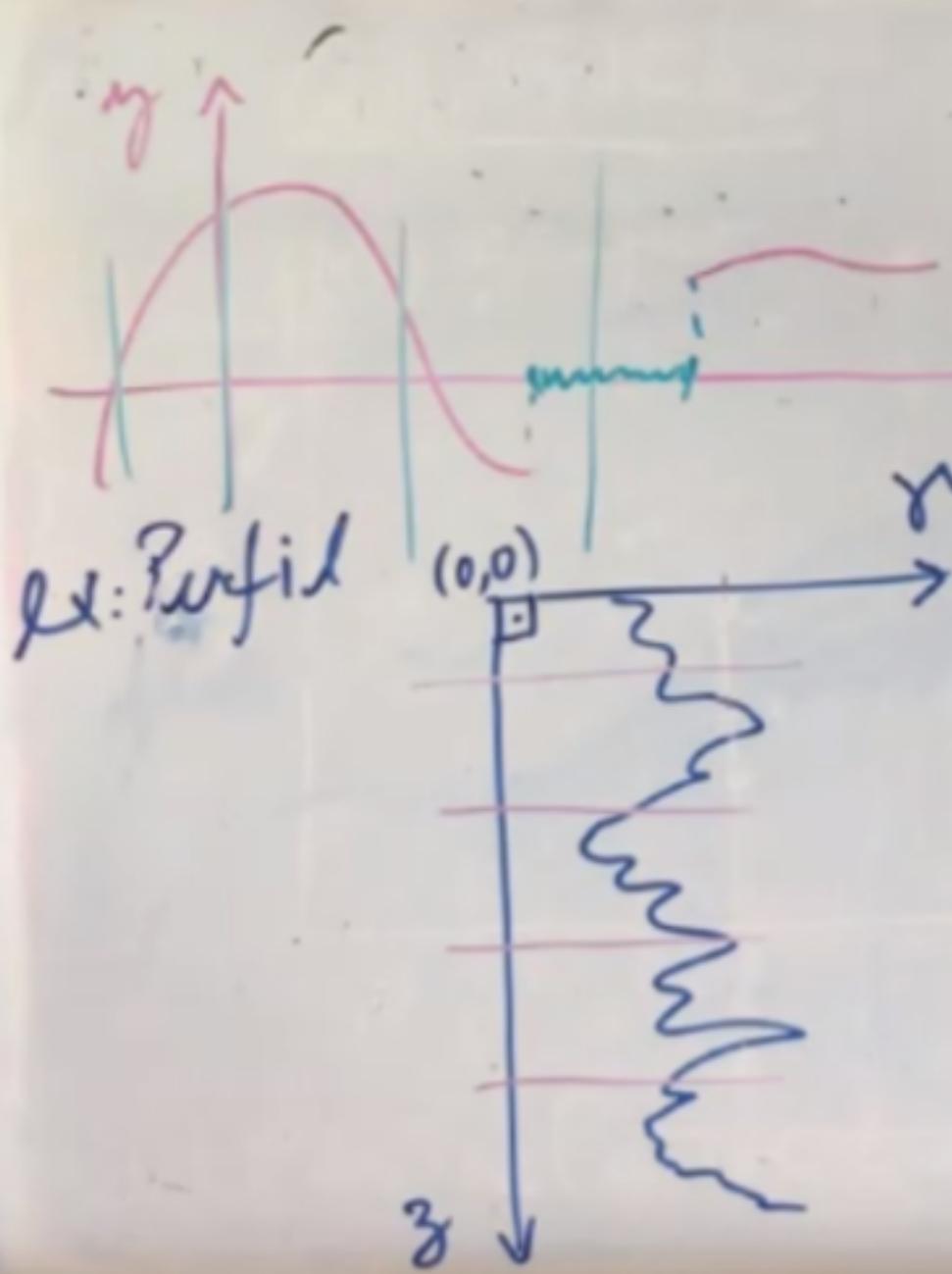
testo de recta vertical (Verifica si es una función) ⑧



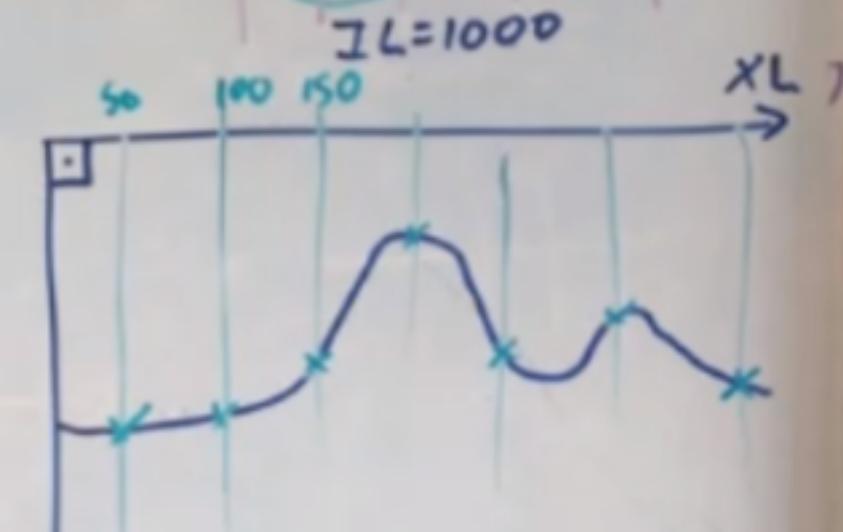
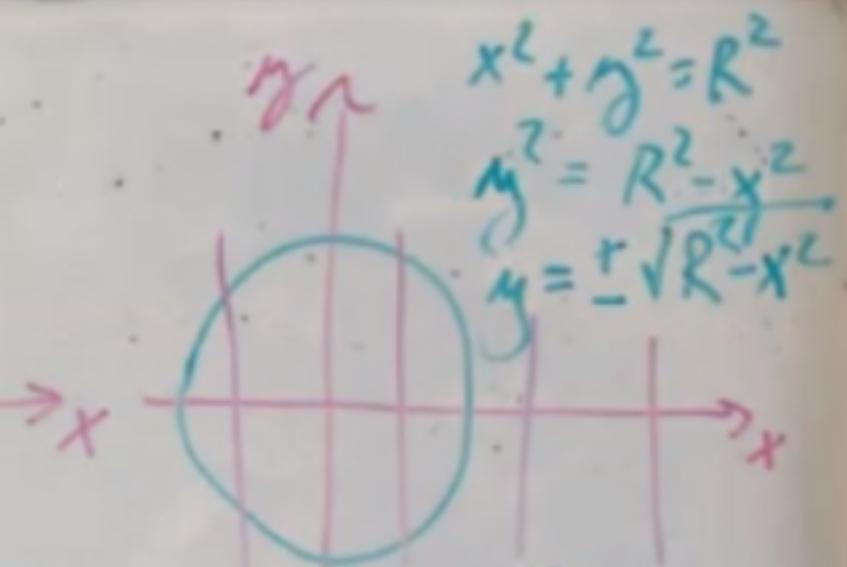
⑨



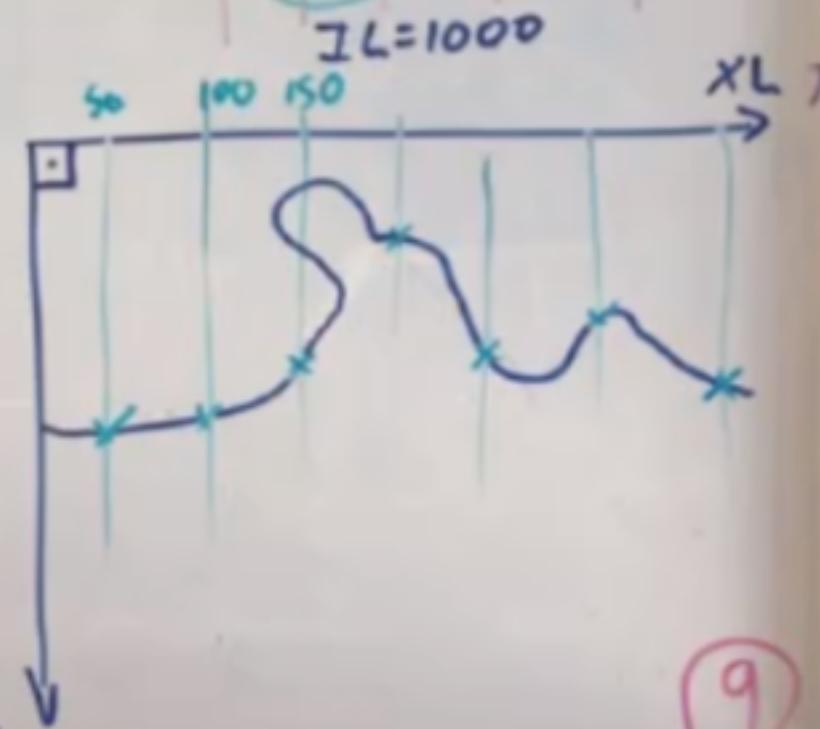
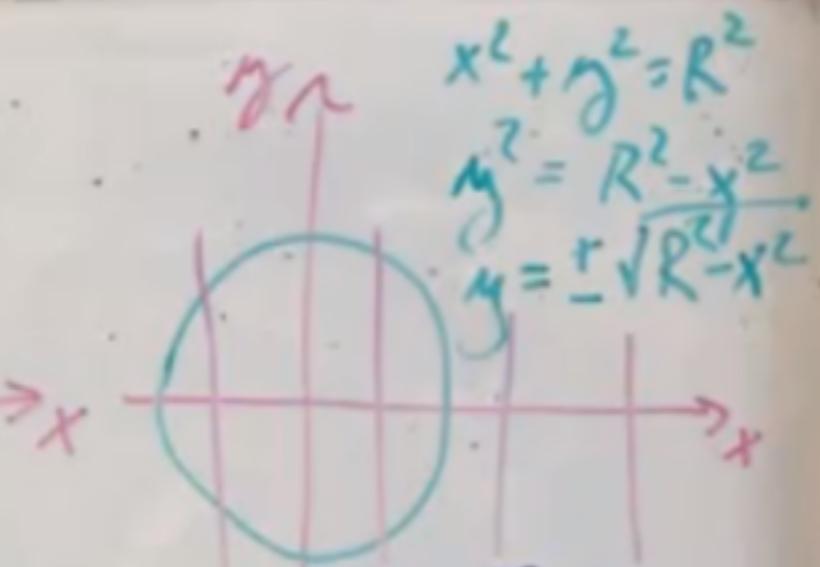
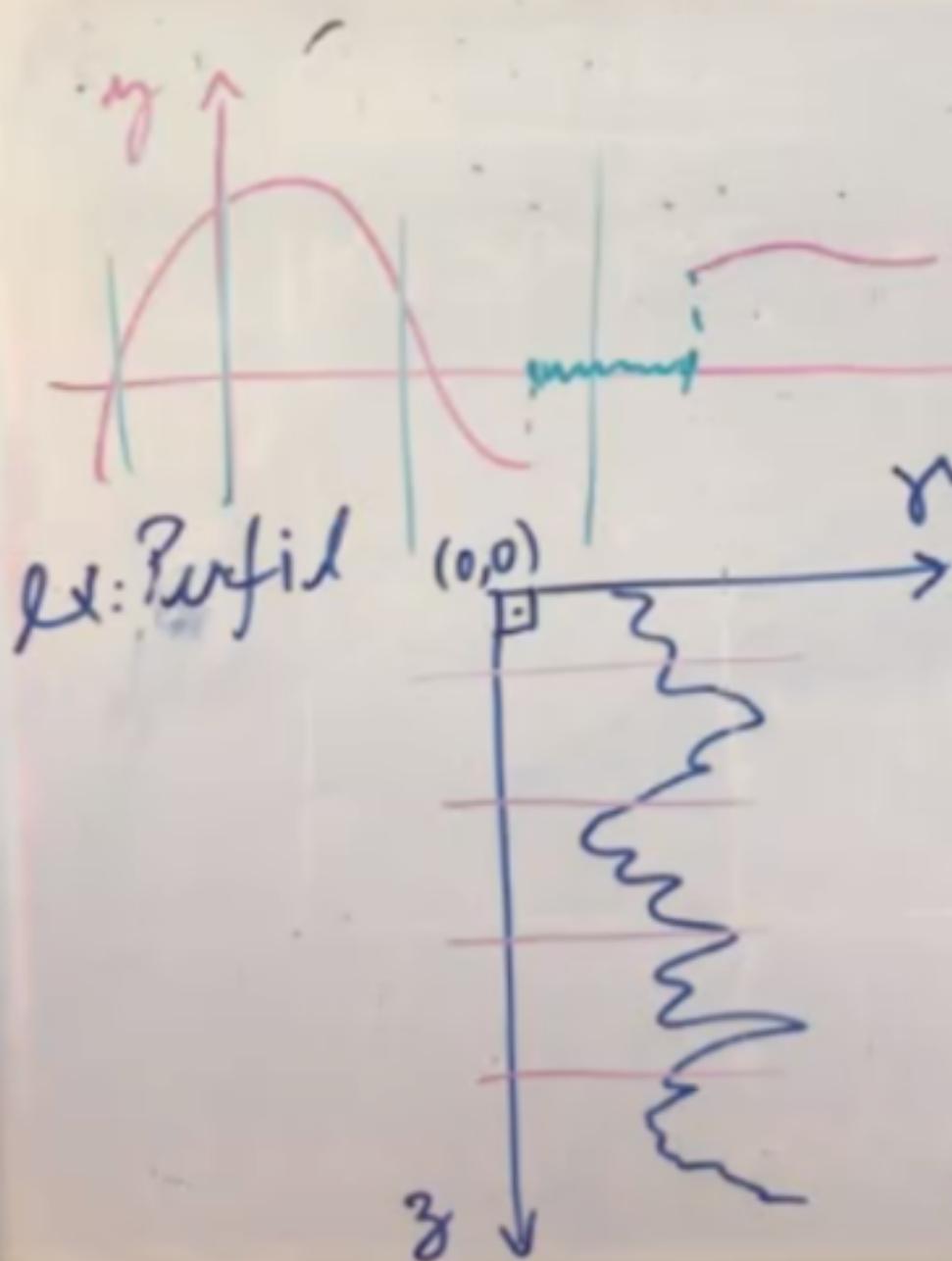
⑨

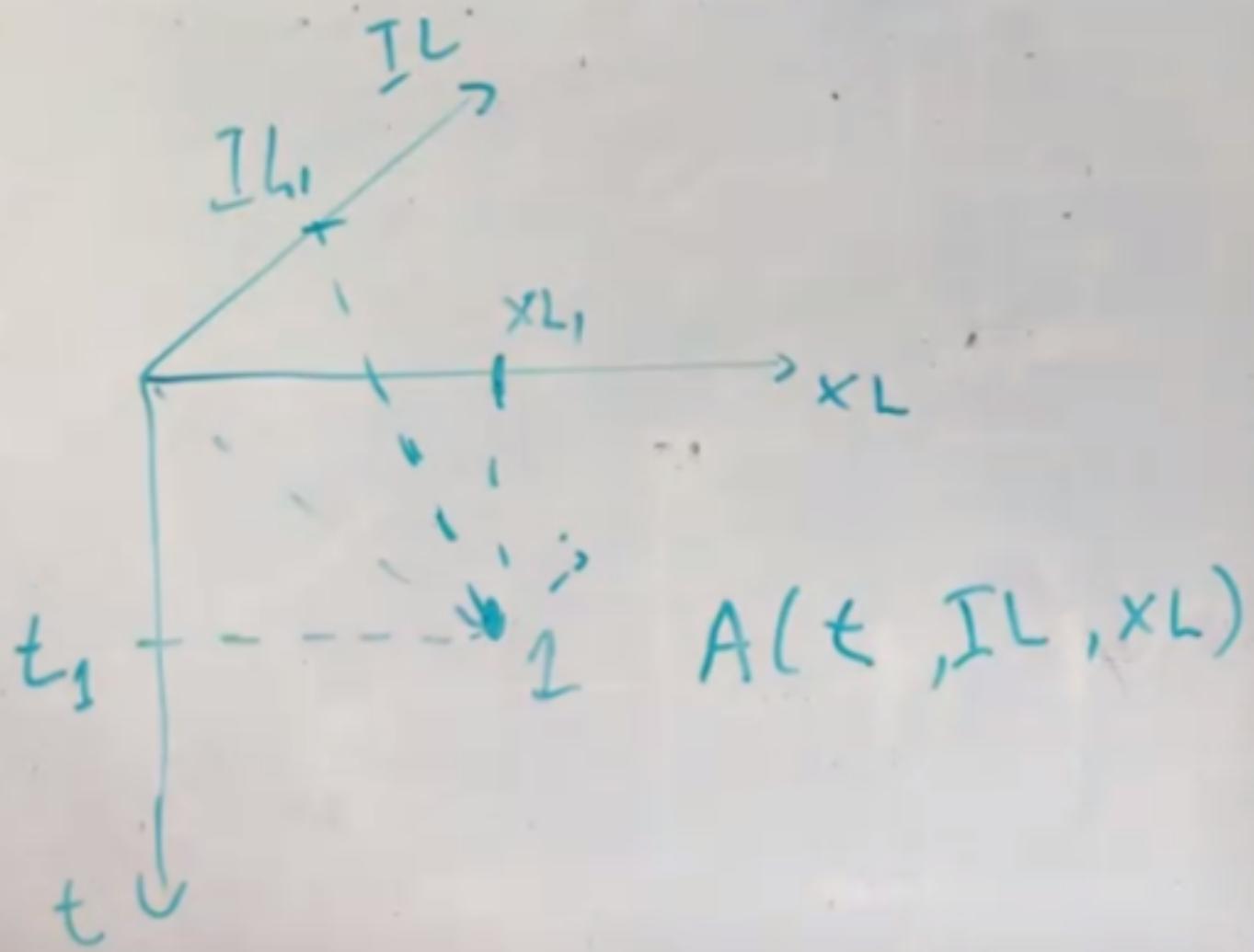


el: Perfil

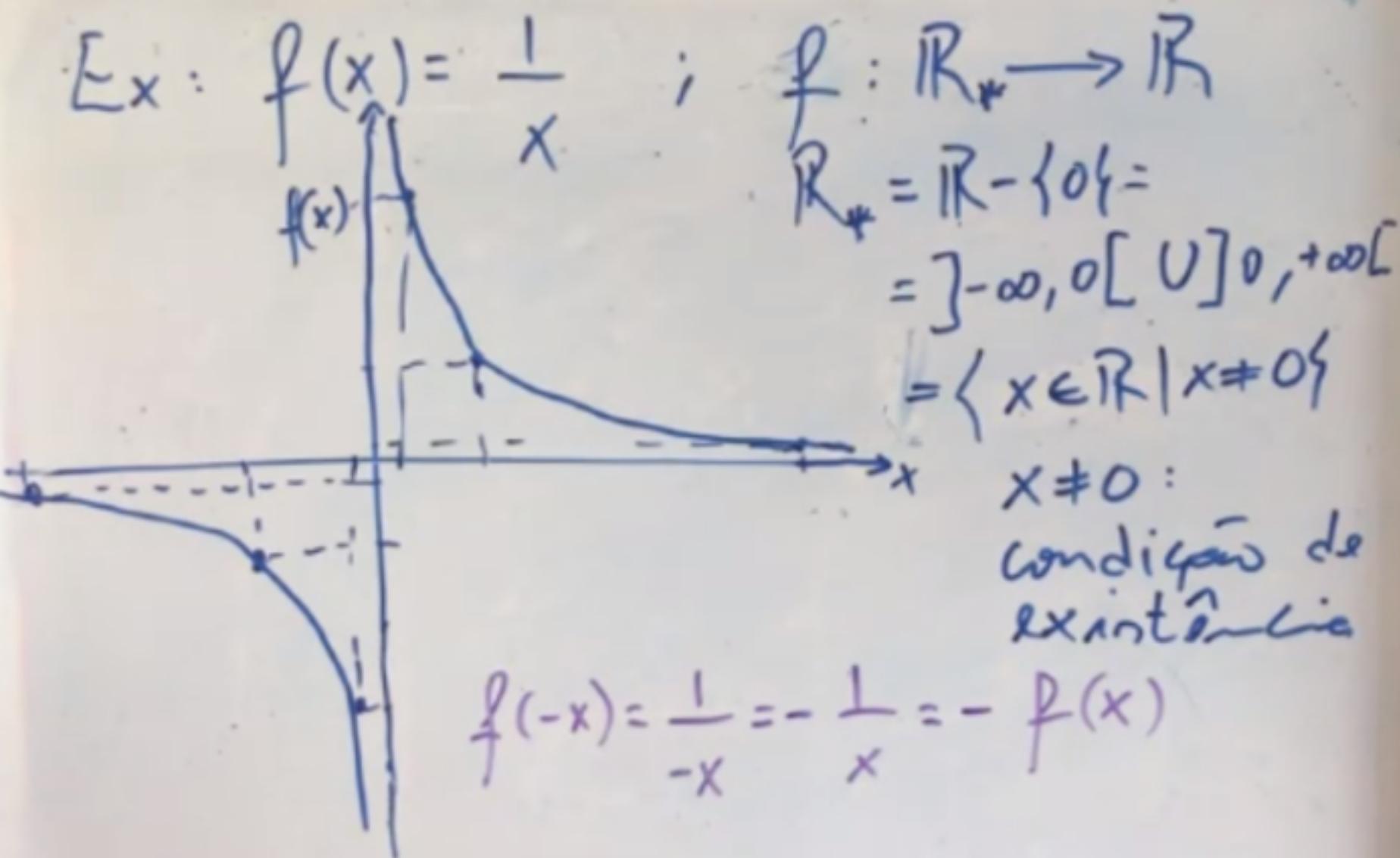


⑨

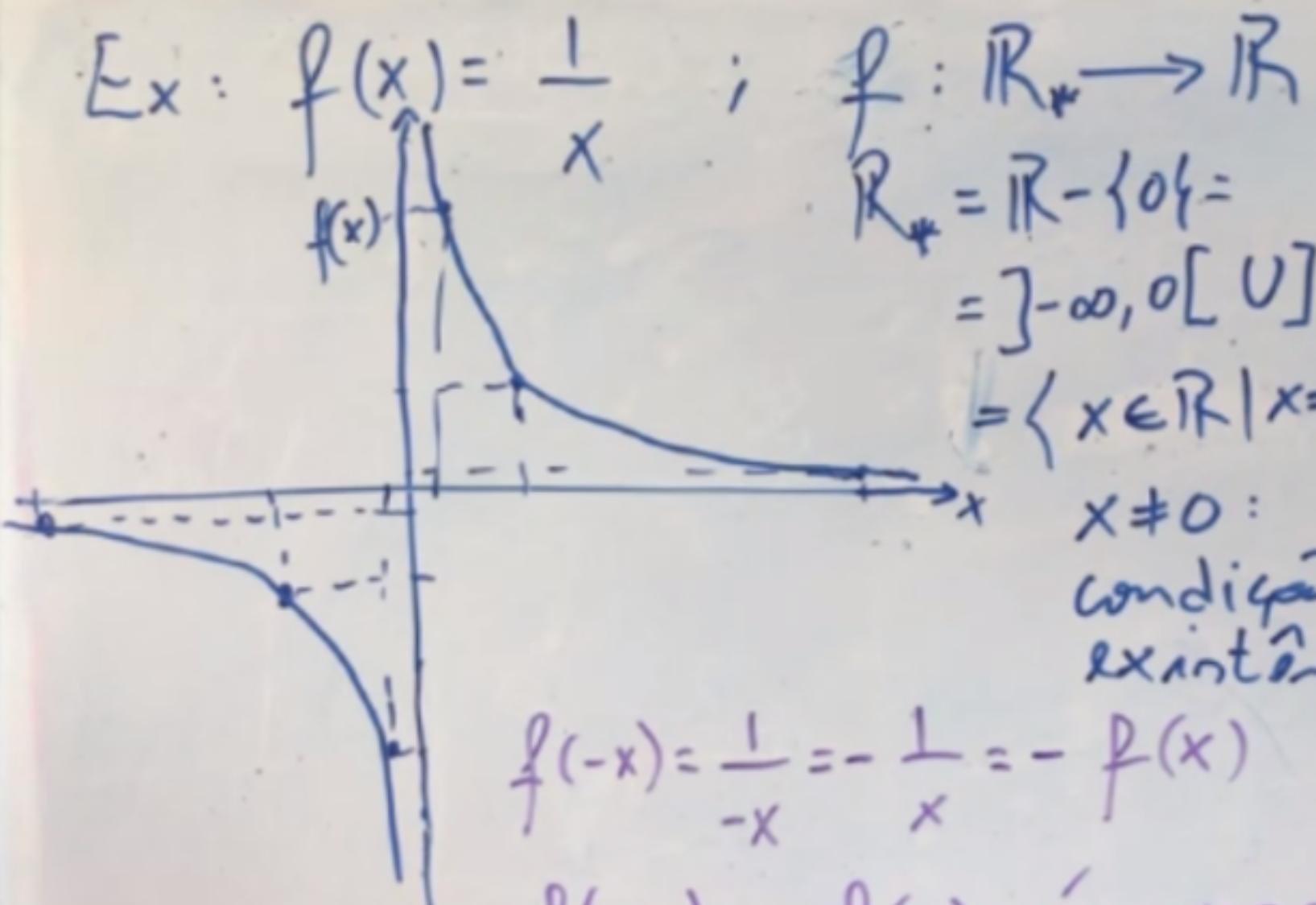




⑨



(10)



$$f(-x) = \frac{1}{-x} = -\frac{1}{x} = -f(x)$$

$f(-x) = -f(x)$: ímpar

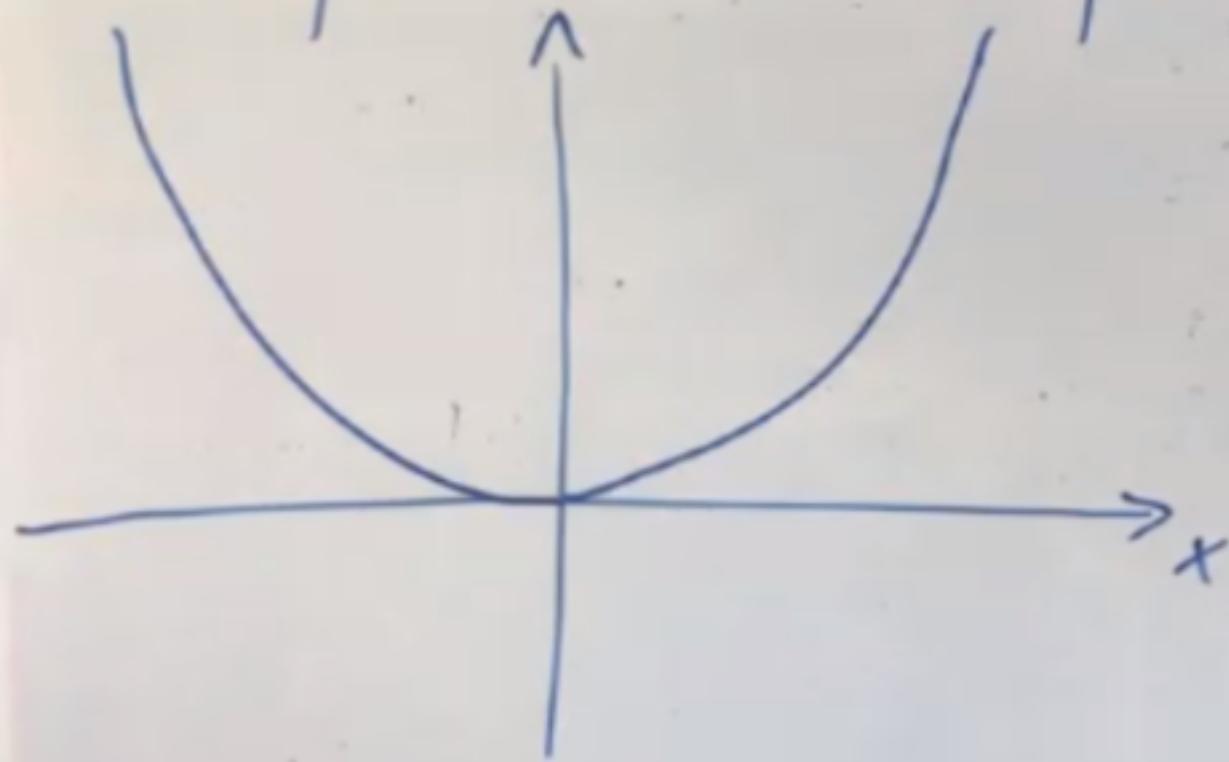
(10)

$$\text{Ex: } f(x) = x^2$$

$$f: \mathbb{R} \rightarrow \mathbb{R}$$

Ex: $f(x) = x^2$

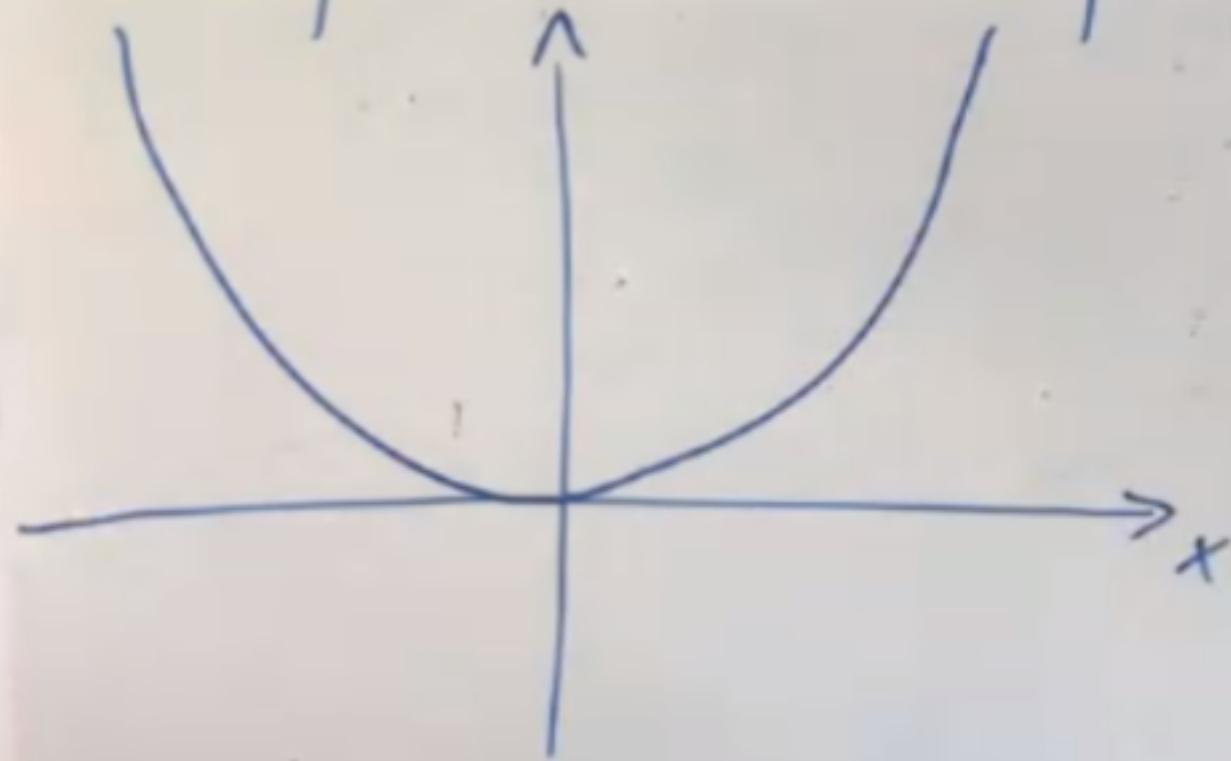
$f: \mathbb{R} \rightarrow \mathbb{R}$



$$f(-x) = (-x)^2$$

Ex: $f(x) = x^2$

$f: \mathbb{R} \rightarrow \mathbb{R}$



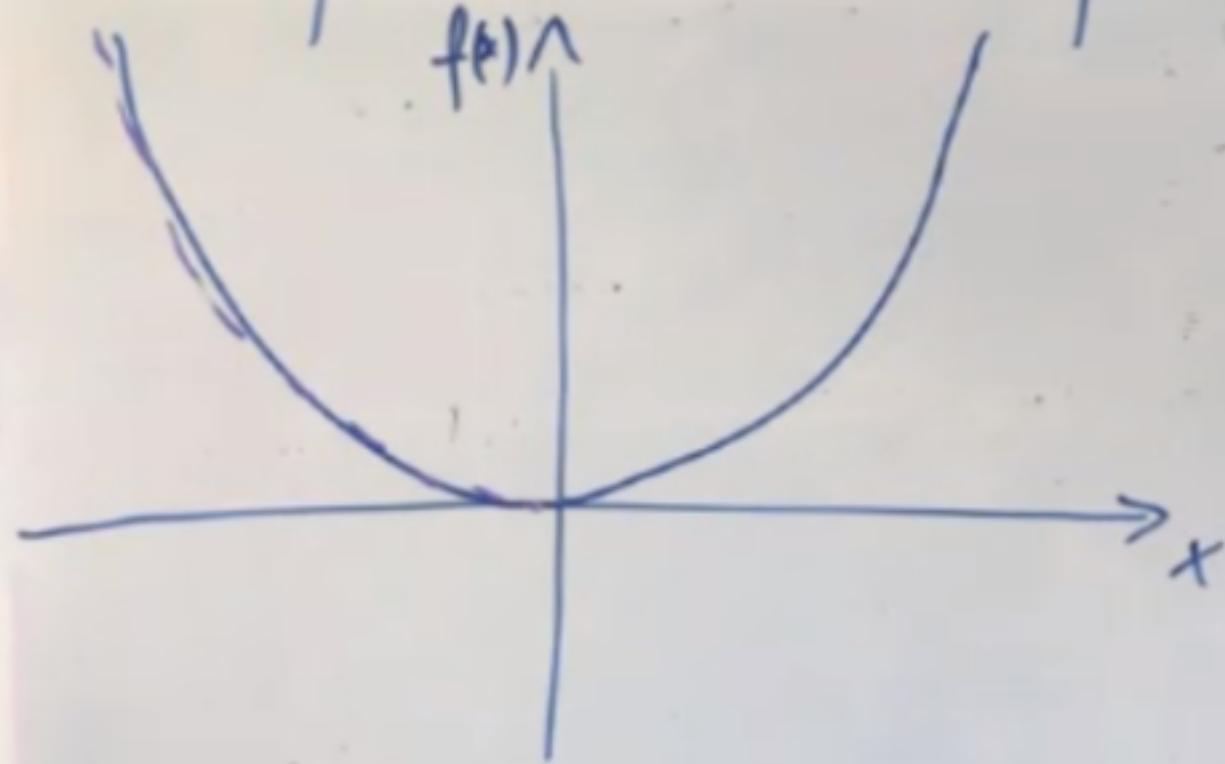
$$f(-x) = (-x)^2 = x^2 = f(x)$$

$f(-x) = f(x)$: par

11

Ex: $f(x) = x^2$

$f: \mathbb{R} \rightarrow \mathbb{R}$



$$f(-x) = (-x)^2 = x^2 = f(x)$$

$$f(-x) = f(x): \text{par}$$

11

REPERTÓRIO DE FUNÇÕES

1) Reta (polinômio do 1º grau)

$$f: \mathbb{R} \rightarrow \mathbb{R} : f(x) = ax + b$$

a : coef. angular (declividade)

b : coef. linear (intercepto)

REPERTÓRIO DE FUNÇÕES

1) Reta (polinômio do 1º grau)

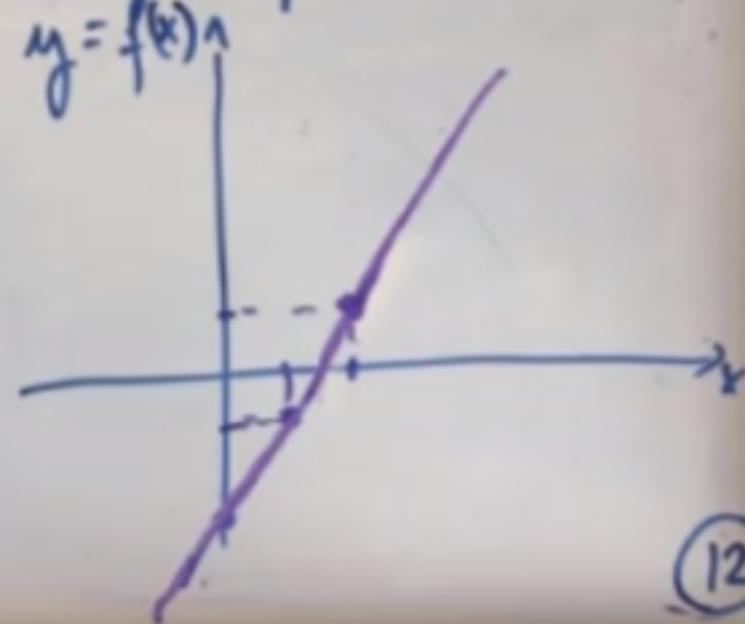
$$f: \mathbb{R} \rightarrow \mathbb{R} : f(x) = ax + b$$

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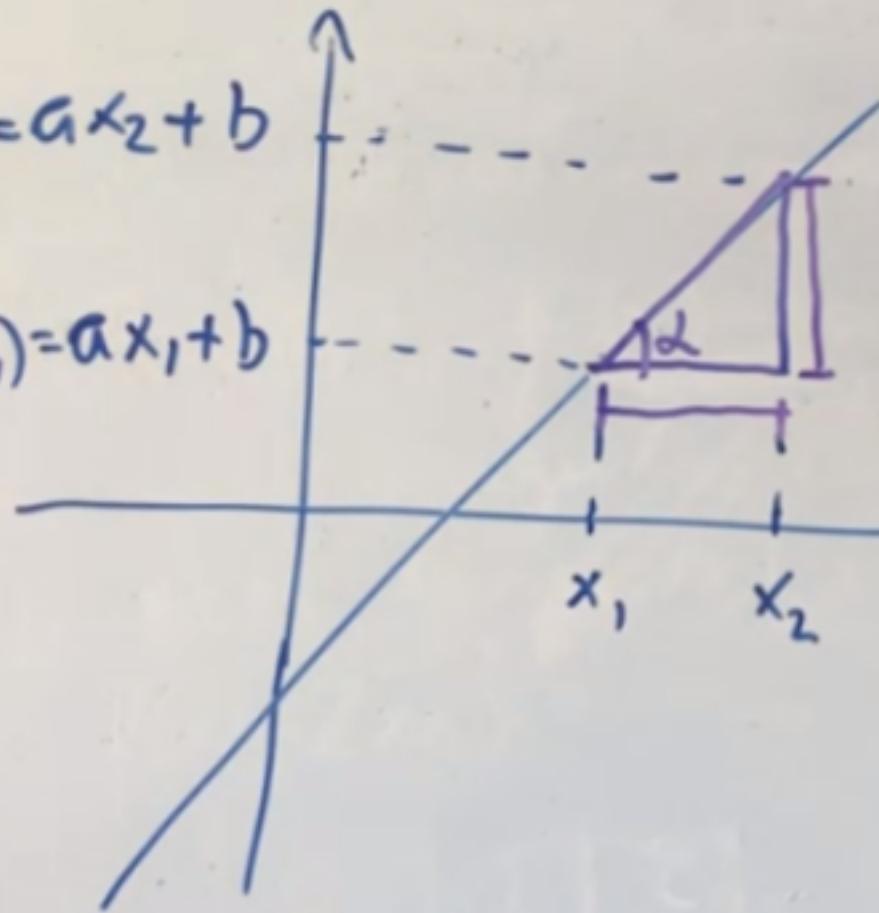
Ex: $f(x) = 2x - 3$

x	0	1	2	...
$f(x)$	-3	-1	1	...



$$f(x_2) = ax_2 + b$$

$$f(x_1) = ax_1 + b$$



$$\operatorname{tg} \alpha = \frac{f(x_2) - f(x_1)}{x_2 - x_1} =$$

$$= \frac{ax_2 + b - ax_1 - b}{x_2 - x_1} =$$

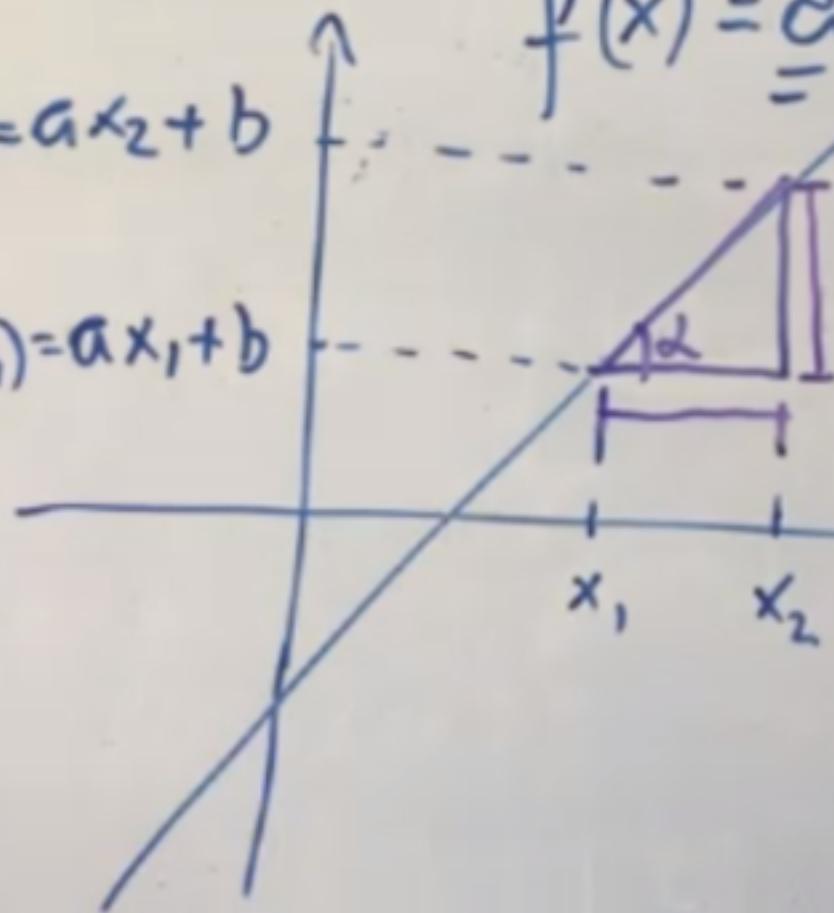
$$= \frac{a(x_2 - x_1)}{x_2 - x_1} = a$$

(13)

$$f(x_2) = ax_2 + b$$

$$f(x_1) = ax_1 + b$$

$$f(x) = ax + b$$



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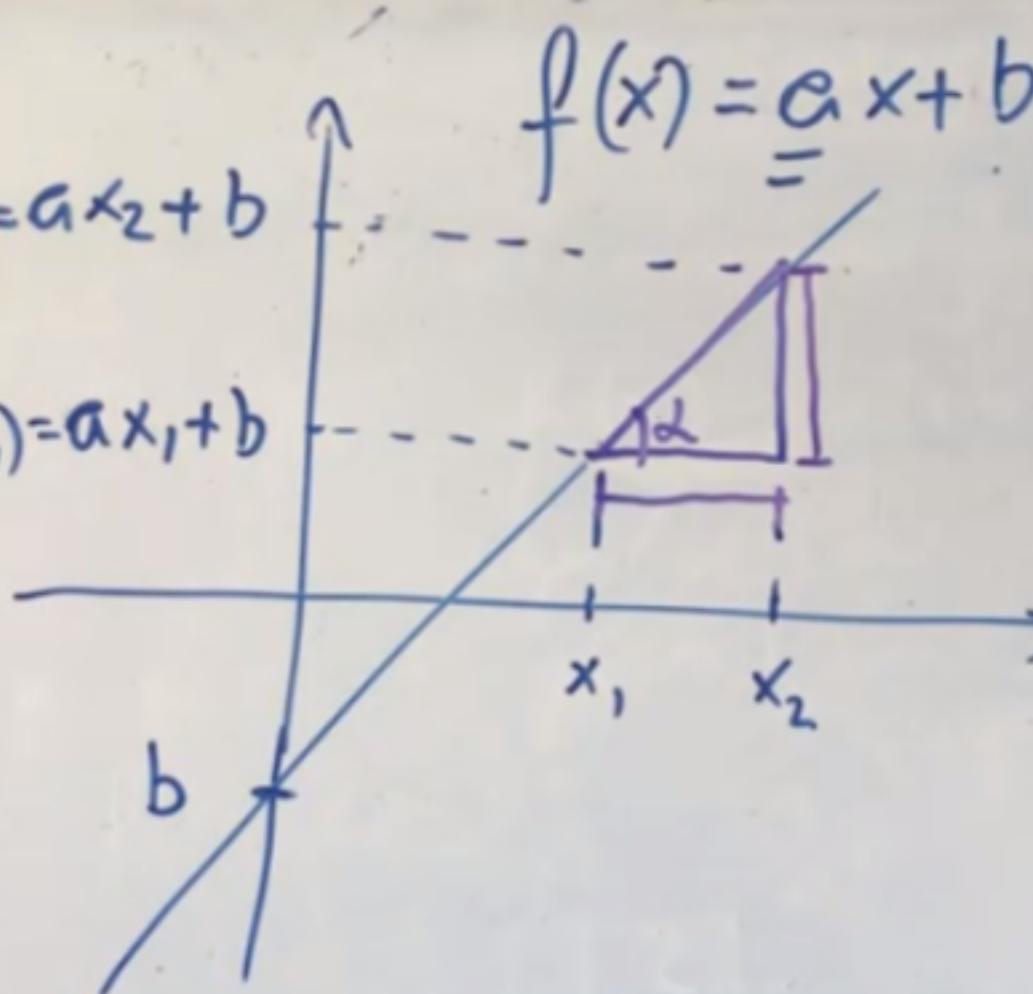
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(13)

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$$f(0) = a \cdot 0 + b$$

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(13)

$$f(x_2) = ax_2 + b$$

$$f(x_1) = ax_1 + b$$

$$(0, b)$$

$$f(x) = ax + b$$

$$(R, 0) | x_1 \quad x_2$$

$$\operatorname{tg} \alpha = \frac{f(x_2) - f(x_1)}{x_2 - x_1} =$$

$$= \frac{ax_2 + b - ax_1 - b}{x_2 - x_1} =$$

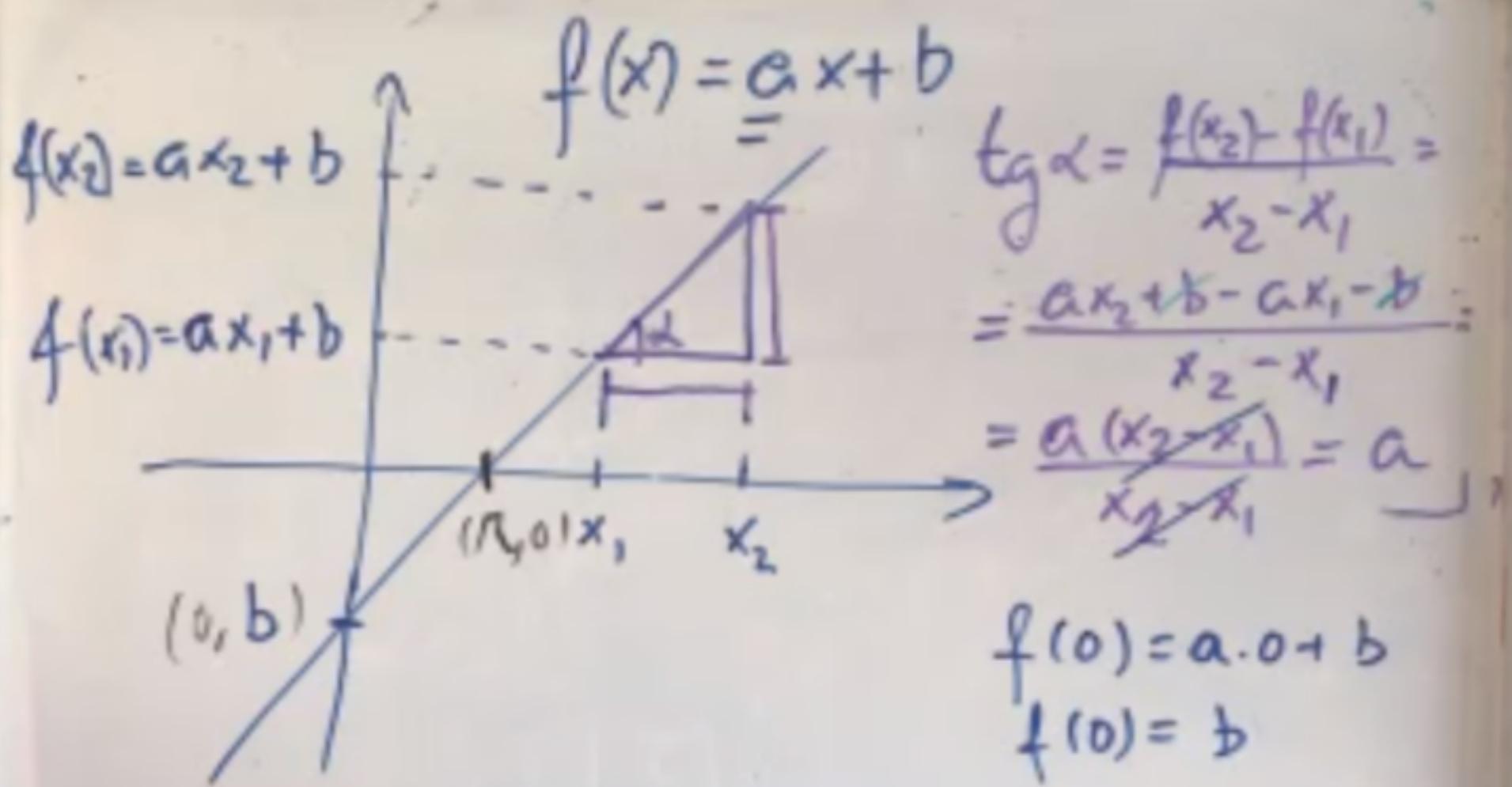
$$= \frac{a(x_2 - x_1)}{x_2 - x_1} = a$$

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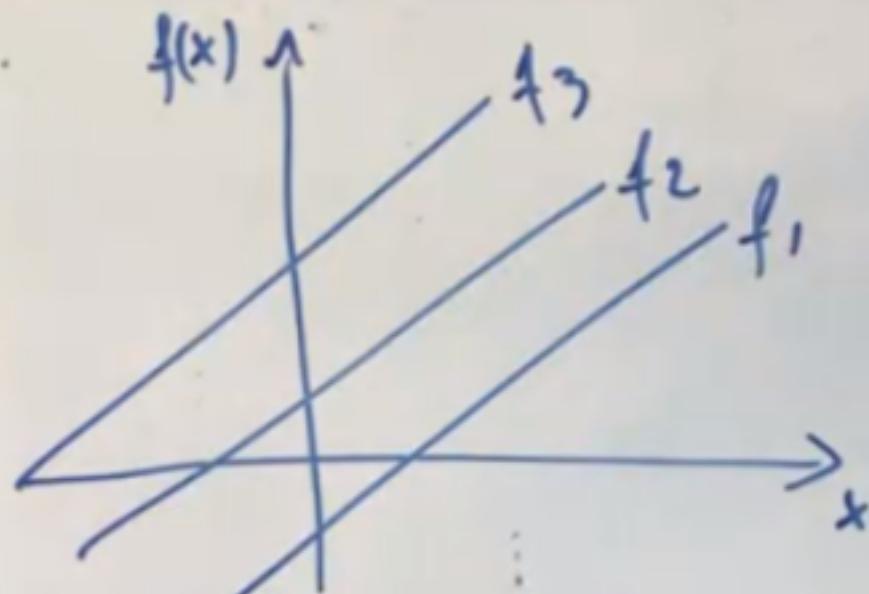
$$\text{R: raiz: } f(r) = 0$$

(13)

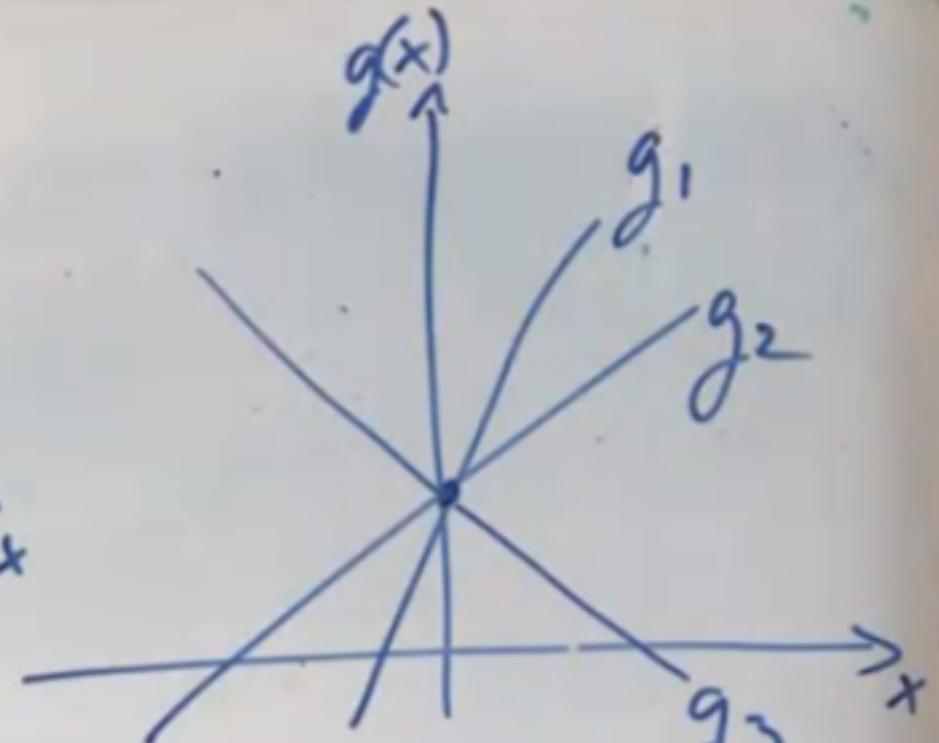


R: nach: $f(n) = 0 \Rightarrow an + b = 0$
 $n = -\frac{b}{a}$

13

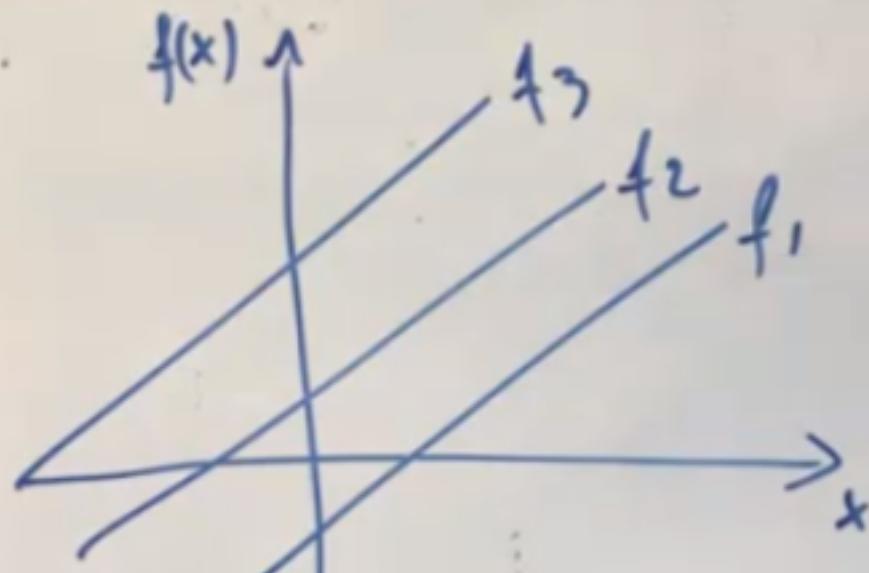


$$f_i(x) = ax + b_i$$

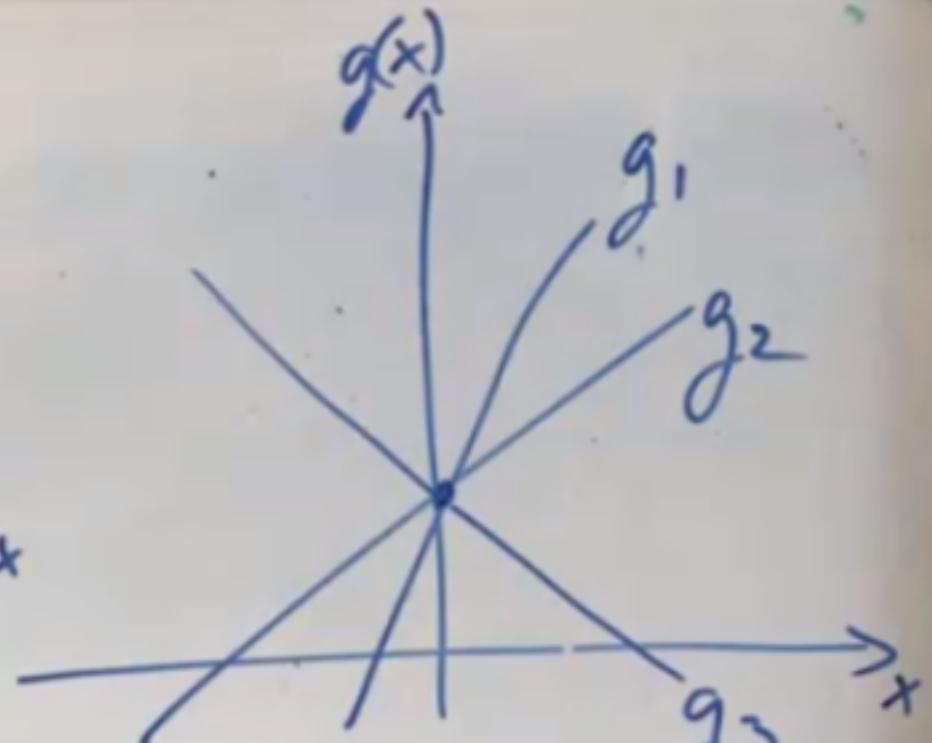


$$g_i(x) = a_i x + b$$

$a > 0$: $x_1 > x_2 \Rightarrow \begin{cases} f(x_1) = ax_1 + b \\ f(x_2) = ax_2 + b \end{cases} \Rightarrow f(x_1) > f(x_2) \rightarrow \text{crescente}$



$$f_i(x) = a_i x + b_i$$

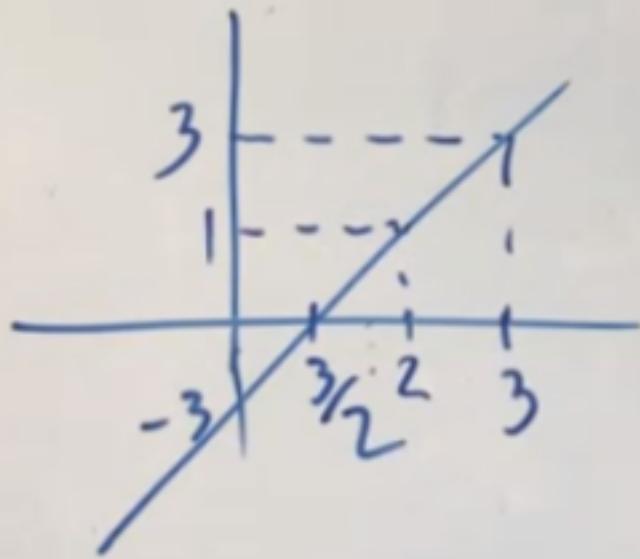


$$g_i(x) = a_i x + b$$

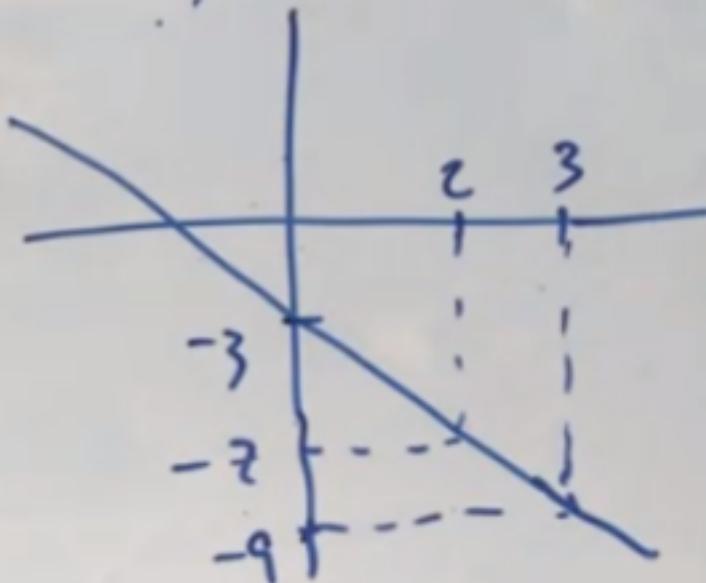
$a > 0$: $x_1 > x_2 \Rightarrow \begin{cases} f(x_1) = a x_1 + b \\ f(x_2) = a x_2 + b \end{cases} \Rightarrow f(x_1) > f(x_2)$ increasing

$a < 0$: $x_1 > x_2 \Rightarrow f(x_1) < f(x_2) \rightarrow$ decreasing

$$\text{ex: } f(x) = 2x - 3$$



$$f(x) = -2x - 3$$



$a > 0$: $x_1 > x_2 \Rightarrow \begin{cases} f(x_1) = ax_1 + b \\ f(x_2) = ax_2 + b \end{cases} \Rightarrow f(x_1) > f(x_2) \rightarrow \underline{\text{crescente}}$

$a < 0$: $x_1 > x_2 \Rightarrow f(x_1) < f(x_2) \rightarrow \underline{\text{decrecente}}$

P. 11: a, b, c

Ler até p. 13

P. 17: 1, 2

P. 37: 1, 2, 4, 9, 10

LISTA
DIA 1

TORIBIO
EUGÉNIO
BRUNO
LUCAS

CALDERON
CRISTIANO
CARLOS
PABLO
VINÍCIUS

PÁDUA
SOFIA
FILIPE
PEDRO

WILLIAN
RAYMUNDO
HUDSON
RODRIGO