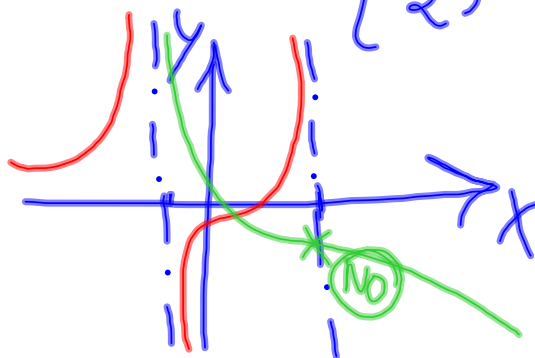


$$f(x) = \frac{3x-1}{2x^2-x-1}$$

$$x_1 = 1 \quad x_2 = -\frac{1}{2}$$

$$\mathcal{D} = \mathbb{R} - \left\{ -\frac{1}{2}; 1 \right\}$$



$$\begin{pmatrix} 2 & 5 \\ 1 & 9 \end{pmatrix} \begin{pmatrix} 2 & 1 \end{pmatrix}$$

apr 8-15:05

$$f(x) = \frac{2x}{\sin x}$$

Z

$$\sin x \neq 0; \quad x \neq k\pi$$

$$\mathcal{D} = \mathbb{R} - \left\{ k\pi : k \in \mathbb{Z} \right\}$$

apr 8-15:07

$$f(x) = \frac{x+7}{x^2+1}$$

$$D = \mathbb{R}$$

$$x^2+1 \neq 0; x^2 \neq -1$$

apr 8-15:10

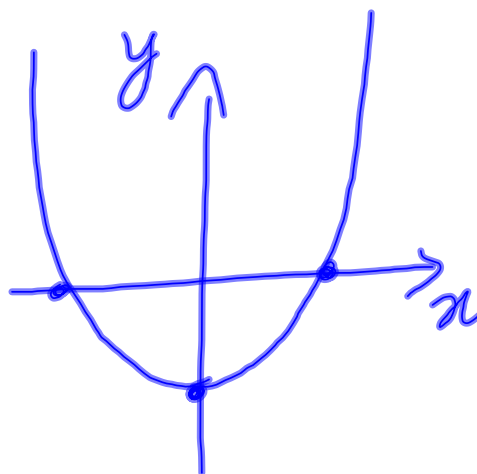
$$y = x^2 - 1$$

$$V(0, -1)$$

$$V\left(-\frac{b}{2a}; \frac{-\Delta}{4a}\right)$$

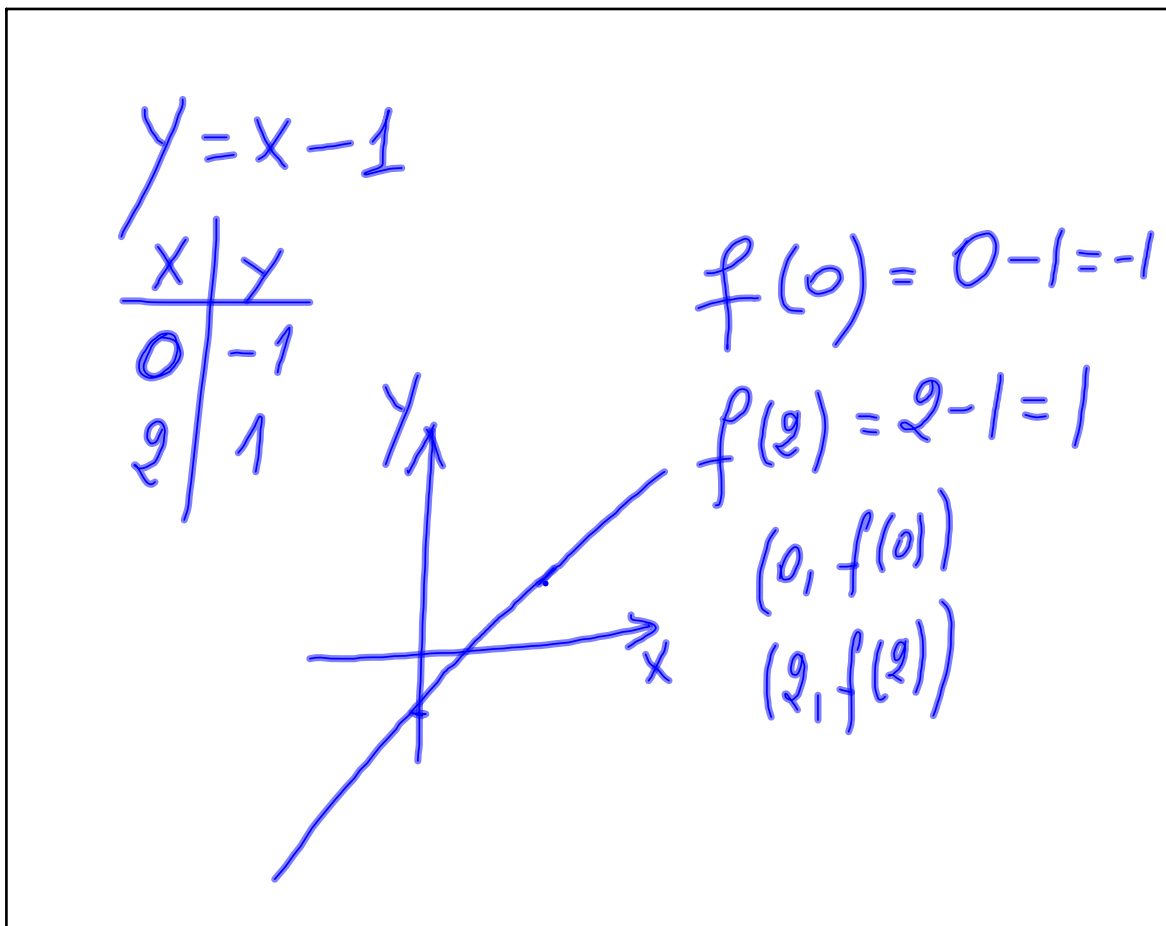
$$x^2 - 1 = 0$$

$$x = \pm 1$$

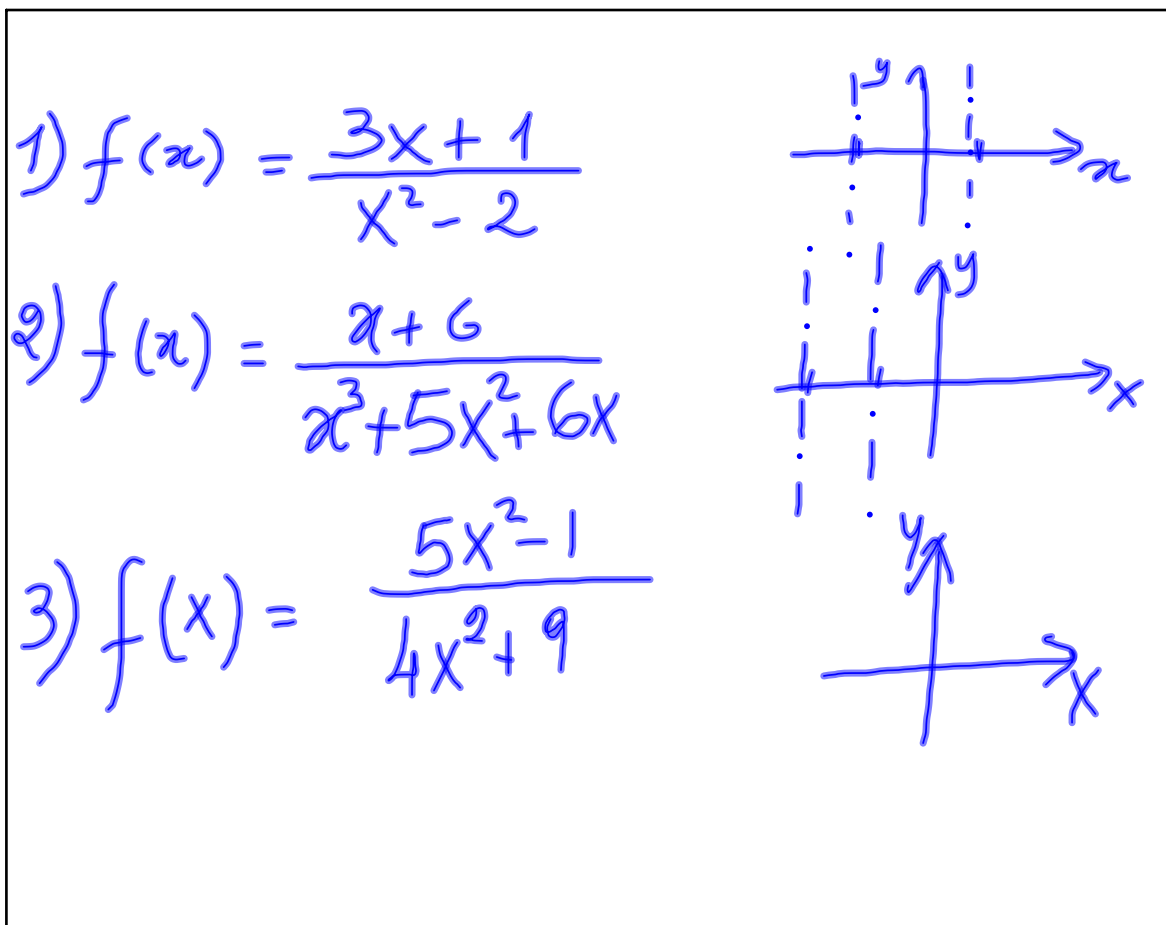


$$(x; f(x))$$

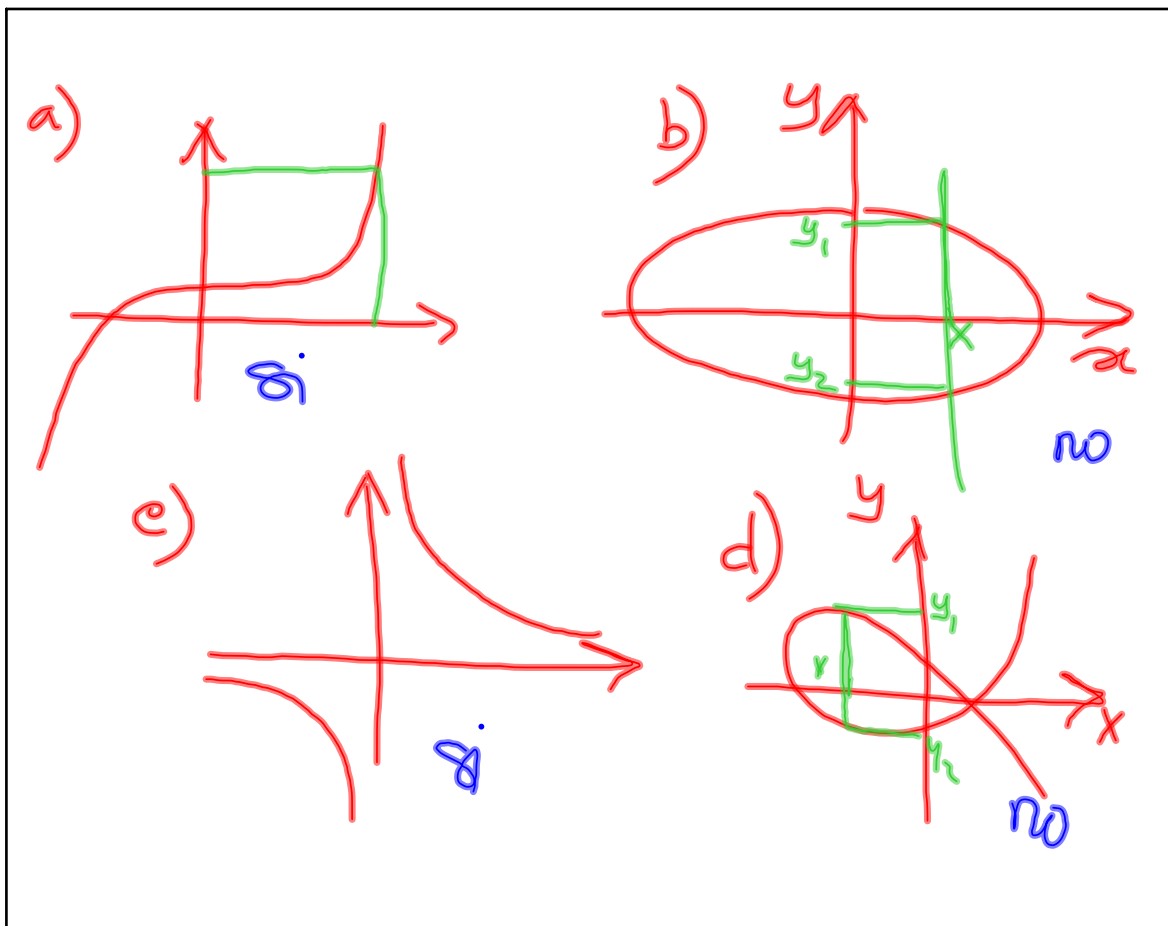
apr 8-15:15



apr 8-15:17



apr 8-15:30



apr 8-16:02

Fni Pari

$$f(x) = \frac{x^4 + 1}{x^2 - 2}$$

$$f(-x) = \frac{(-x)^4 + 1}{(-x)^2 - 2} = \frac{x^4 + 1}{x^2 - 2} = f(x)$$

$$f(x) = \frac{x^3 + x}{x^5}$$

$$f(-x) = \frac{(-x)^3 + (-x)}{(-x)^5} = \frac{-x^3 - x}{-x^5} = \frac{-(x^3 + x)}{-x^5} = \frac{x^3 + x}{x^5} = f(x)$$

apr 8-16:19

Studio dell'andamento di una funzione

- 1) Classificazione della funzione
- 2) Dominio
- 3) Eventuali simmetrie
- 4) Segno

apr 8-16:27

Studiare la funzione $f(x) = \frac{x-2}{x^2-1}$

1) Funzione algebrica razionale fratta di 3° grado

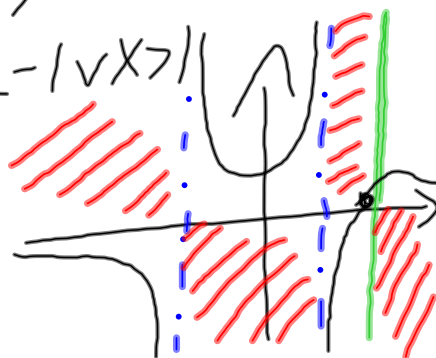
2) $D = \mathbb{R} - \{-1; 1\}$

3) $f(-x) = \frac{(-x)-2}{(-x)^2-1} = \frac{-x-2}{x^2-1} \neq \pm f(x)$ non amm. simm.

4) $\frac{x-2}{x^2-1} \geq 0 \quad N \geq 0 \quad x \geq 2$
 $D > 0 \quad x < -1 \vee x > 1$



$(2, 0)$



apr 8-16:30

$$y = \frac{x-2}{x^2-1}$$

$$x^2 y - y = x - 2$$

$$y = \frac{x^5 - 2}{x^3 + 1}$$

apr 8-16:34