

$$y = \frac{x^2 - 2x + 1}{8 - 2x^2}$$

$$D = \{ \forall x \in \mathbb{R} : x \neq -2 \wedge x \neq +2 \}$$

$$D =]-\infty; -2[\cup]-2; 2[\cup]2; +\infty[$$

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

int esse x
(1; 0)

int esse y

(0; 1/8)

Asintoti verticali

$$x = -2$$

$$x = +2$$

Asintoto orizzontale

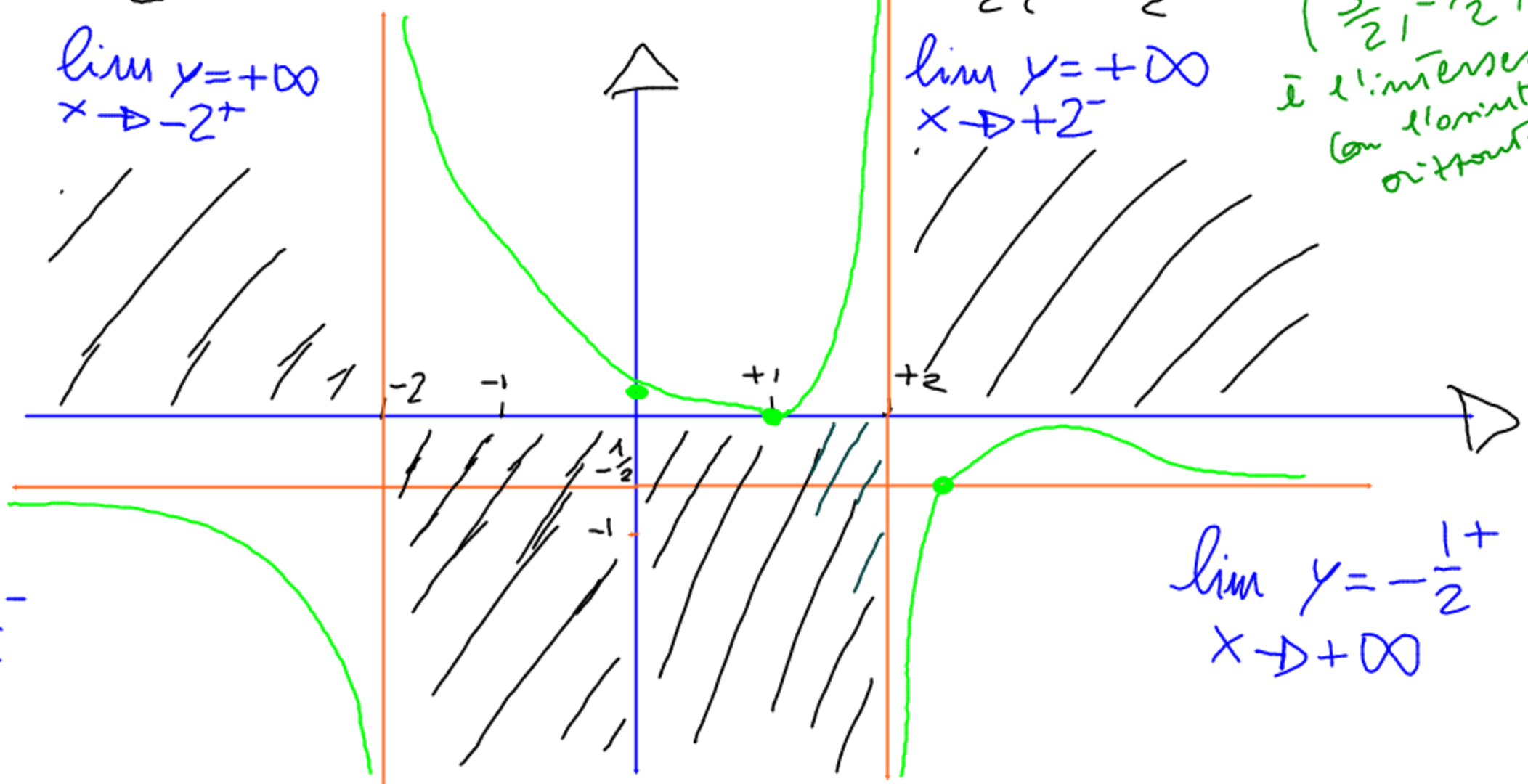
$$y = -\frac{1}{2}$$

$$\lim_{x \rightarrow \infty} \frac{x^2 - 2x + 1}{8 - 2x^2} = \lim_{x \rightarrow \infty} \frac{1 - \frac{2}{x} + \frac{1}{x^2}}{\frac{8}{x^2} - 2} = -\frac{1}{2}$$

$$\left\{ \begin{array}{l} y = -\frac{1}{2} \\ y = \frac{x^2 - 2x + 1}{8 - 2x^2} \end{array} \right\} \left\{ \begin{array}{l} -\frac{1}{2} = \frac{(x-1)^2}{2(4-x^2)} \\ -4 + x^2 = x^2 - 2x + 1 \end{array} \right\} \left\{ \begin{array}{l} +7x = +5 \\ x = \frac{5}{7} \end{array} \right\}$$

$$\left\{ \begin{array}{l} -4 + x^2 = x^2 - 2x + 1 \\ +7x = +5 \\ x = \frac{5}{7} \end{array} \right\}$$

(5/7; -1/2)
è l'intersezione
con l'asintoto
orizzontale



$$\lim_{x \rightarrow -2^+} y = +\infty$$

$$\lim_{x \rightarrow +2^-} y = +\infty$$

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

$$\lim_{x \rightarrow +\infty} y = -\frac{1}{2}^+$$

$$\lim_{x \rightarrow -2^-} y = -\infty$$

$$\lim_{x \rightarrow +2^+} y = -\infty$$