

$$y = \frac{1}{10} x^6 - \frac{3}{5} x^4$$

$$D: \mathbb{R}$$

$$\text{Ass } \begin{cases} y = \frac{1}{10} x^6 - \frac{3}{5} x^4 \\ y = 0 \end{cases}$$

$$A(0, 0)$$

$$\text{Ass } \begin{cases} y = \frac{1}{10} x^6 - \frac{3}{5} x^4 \\ x = 0 \end{cases}$$

$$B(\sqrt{6}, 0)$$

$$C(-\sqrt{6}, 0)$$

$$\frac{1}{10} x^6 - \frac{3}{5} x^4 = 0$$

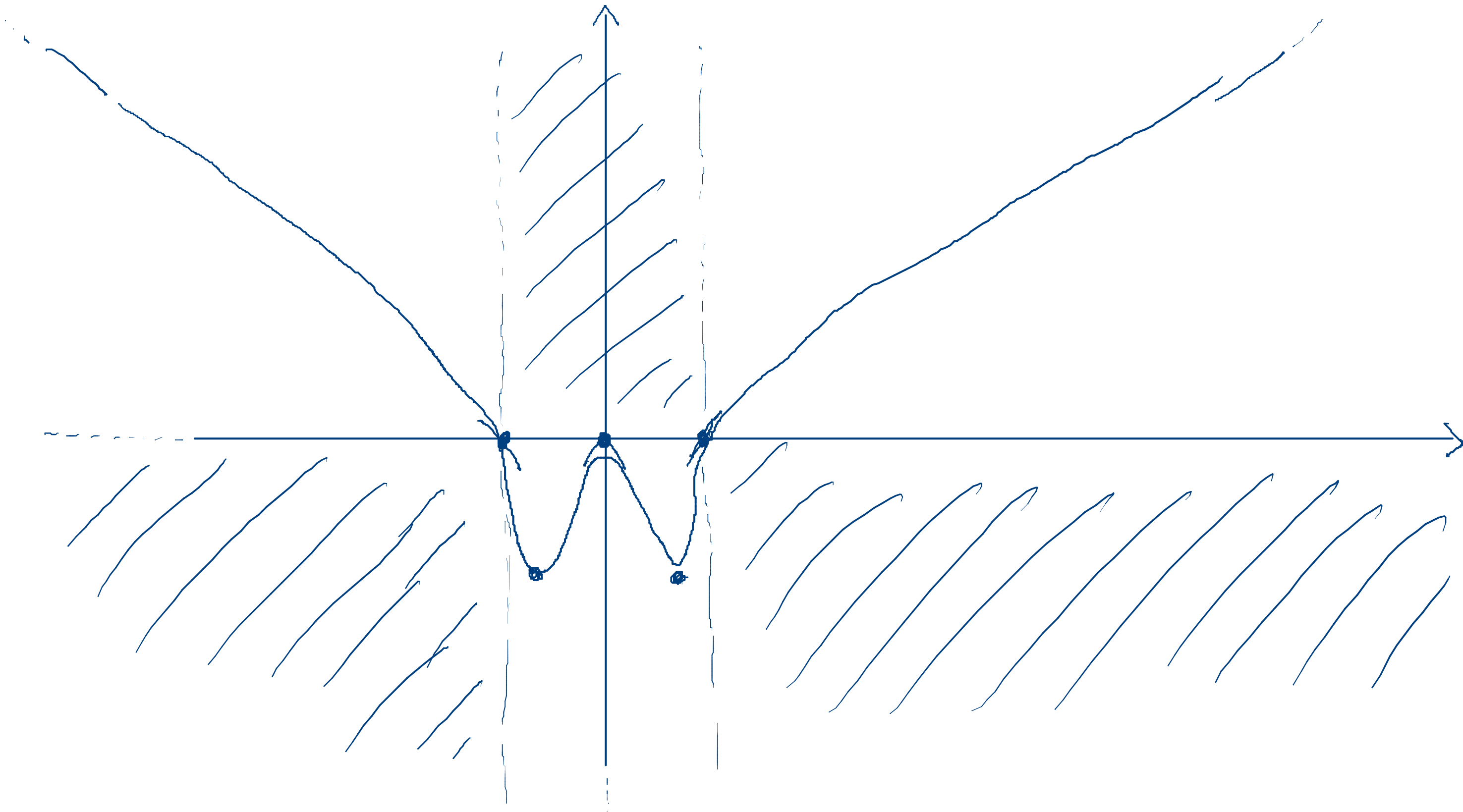
$$x^4 \cdot \left(\frac{1}{10} x^2 - \frac{3}{5} \right) = 0$$

$$x^4 = 0, \quad x = 0$$

$$\frac{1}{10} x^2 - \frac{3}{5} = 0$$

$$x^2 - 6 = 0 \quad | \cdot 10$$

$$x^2 - 6 = 0 \quad x = \pm \sqrt{6}$$



$$\lim_{x \rightarrow +\infty}$$

$$\frac{1}{10}x^6 - \frac{3}{5}x^4 = +\infty - \infty$$

F.I.

$$\lim_{x \rightarrow +\infty}$$

$$x^6 \left(\frac{1}{10} - \frac{3}{5x^2} \right) = +\infty$$

$$\frac{N}{\infty} = 0$$

$$\frac{N}{0} = \infty$$

$$y' = \frac{6}{10} x^5 - \frac{12}{5} x^3$$

$$\frac{6}{10} x^5 - \frac{12}{5} x^3 = 0$$

$$x^3 \left(\frac{6}{10} x^2 - \frac{12}{5} \right) = 0$$

$$x^3 = 0, \quad x = 0$$

$$\frac{6}{10} x^2 - \frac{12}{5} = 0$$

$$\frac{6x^2 - 24}{10} = 0$$

$$\frac{6x^2}{6} = \frac{24}{6}$$

$$f(2) = \frac{1}{10} 64 - \frac{3}{5} 16 =$$

$$\frac{64}{10} - \frac{48}{5} = \frac{64 - 96}{10} = -\frac{32}{10}$$

$$A(0, 0) \quad \text{Max rel}$$

$$D\left(2, -\frac{32}{10}\right) \quad \text{min rel}$$

$$E\left(-2, -\frac{32}{10}\right) \quad \text{min rel}$$

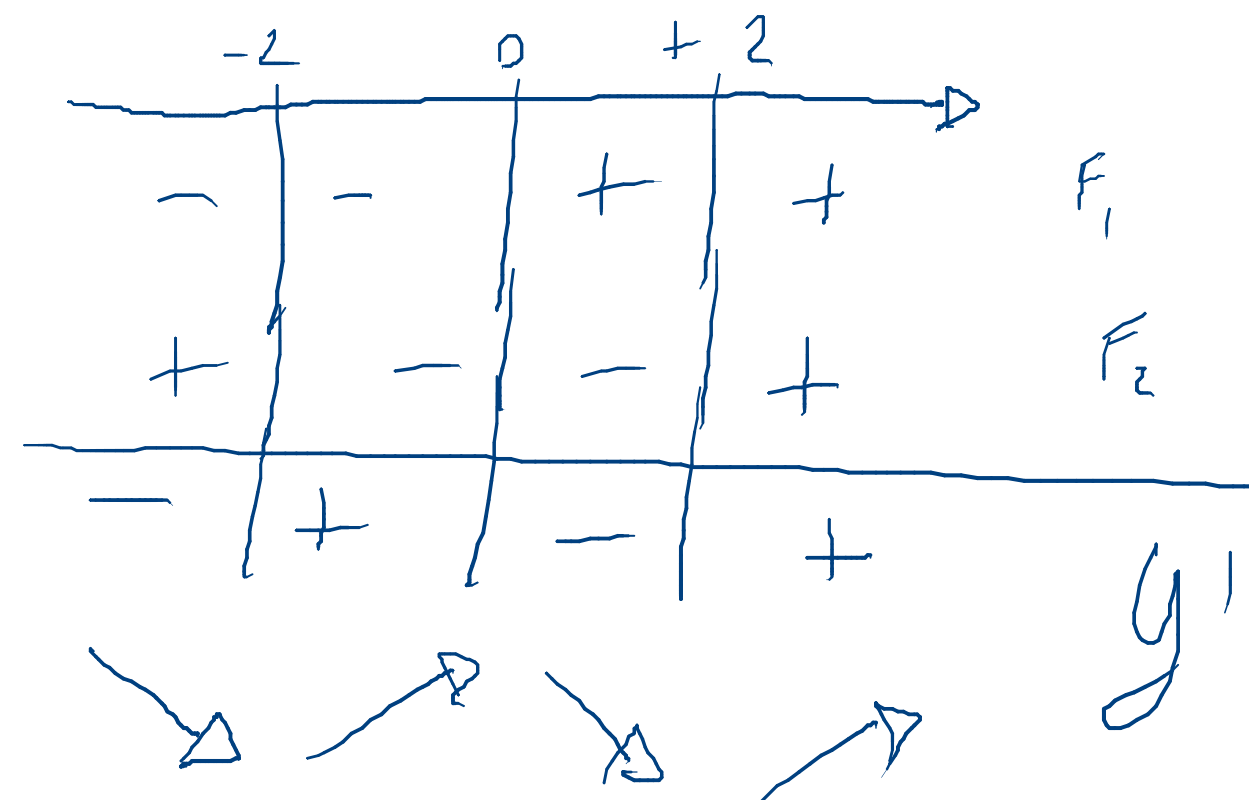
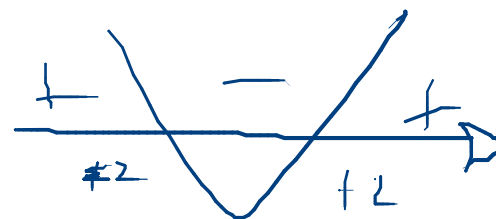
$$x^2 = 4, \quad x = \pm 2$$

$$x^3 \left(\frac{6}{10} x^2 - \frac{12}{5} \right) > 0$$

$$x^3 > 0$$

$$x > 0$$

$$\frac{6}{10} x^2 - \frac{12}{5} > 0$$



$$\frac{1}{10}x^6 - \frac{3}{5}x^4 > 0$$

$$x^4 \left(\frac{1}{10}x^2 - \frac{3}{5} \right) > 0$$

$$F_1: x^4 > 0$$

$$F_2: \frac{1}{10}x^2 - \frac{3}{5} > 0$$

