

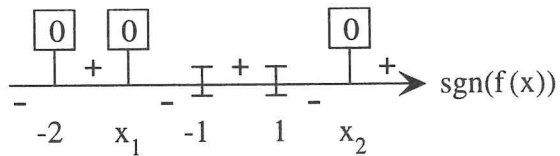
$$5) f(x) = \frac{3x^3 + 6x^2 - 4x - 8}{x^2 - 1}$$

$$ED(f) = \mathbb{R} - \{\pm 1\}$$

$$f(x) = \frac{(3x^2 - 4)(x + 2)}{(x - 1)(x + 1)}$$

Asymptotes verticales : $x = -1$ et $x = 1$

$$\text{zéros : } x = -2 ; x_{1,2} = \pm \frac{2\sqrt{3}}{3}$$



$$\begin{array}{r|l} 3x^3 + 6x^2 + 4x - 8 & x^2 - 1 \\ - 3x^3 & + 3x - 1 \\ \hline 6x^2 - x - 8 & \\ - 6x^2 & + 6 \\ \hline - x - 2 & \end{array}$$

Asymptote oblique : $y = 3x + 6$

$$f(x) = 3x + 6 - \frac{x + 2}{x^2 - 1}$$

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

