$$f(x) = \frac{x}{x^2 - 1}, \quad \mathcal{D} = \mathbb{R} \setminus \{-1, 1\},$$
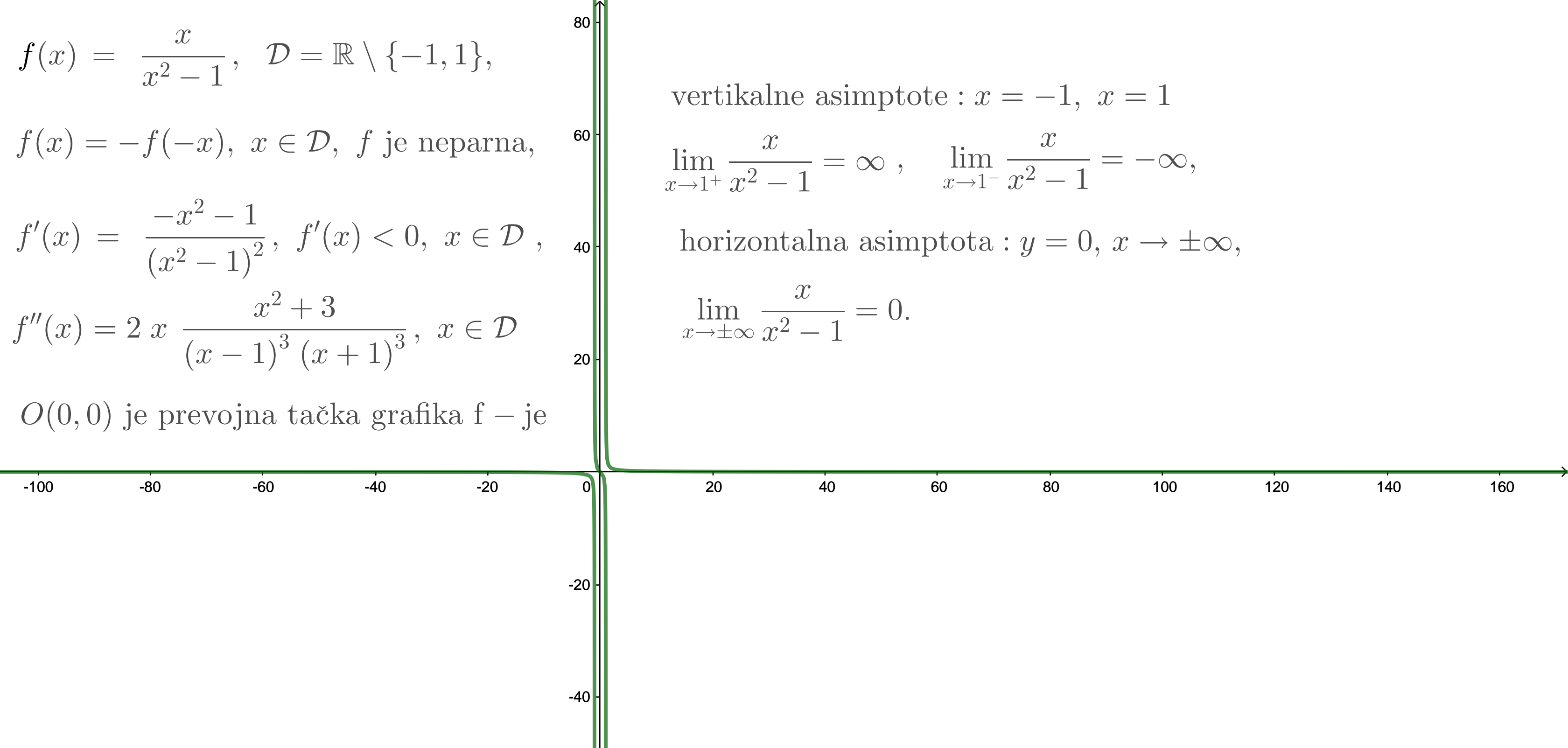
$$f(x) = -f(-x), \ x \in \mathcal{D}, \ f \text{ je neparna},$$

$$f'(x) = \frac{-x^2 - 1}{(x^2 - 1)^2}, \ f'(x) < 0, \ x \in \mathcal{D},$$

$$f''(x) = 2\,x\,\frac{x^2 + 3}{(x - 1)^3\,(x + 1)^3}, \ x \in \mathcal{D}$$

$O(0,0)$ je prevojna tačka grafika $f - $ je

vertikalne asimptote $: x = -1, \ x = 1$

$$\lim_{x \to 1^+} \frac{x}{x^2 - 1} = \infty \ , \qquad \lim_{x \to 1^-} \frac{x}{x^2 - 1} = -\infty,$$

horizontalna asimptota $: y = 0, \ x \to \pm\infty,$

$$\lim_{x \to \pm\infty} \frac{x}{x^2 - 1} = 0.$$