

4.6:16 Skisser grafen til

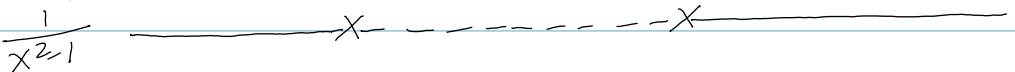
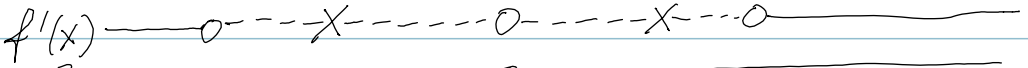
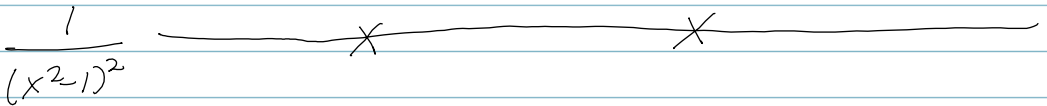
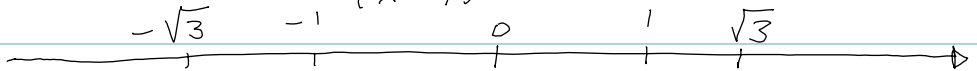
$$y = f(x) = \frac{x^3}{x^2 - 1}$$

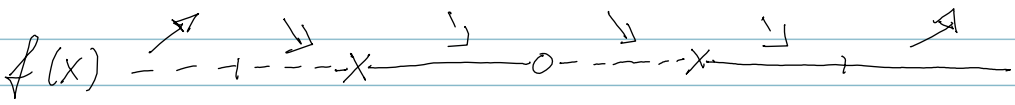
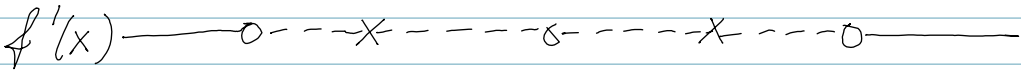
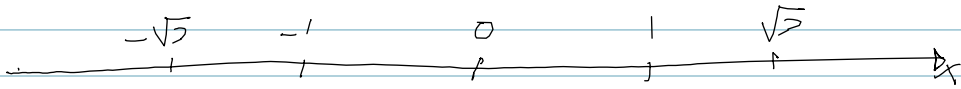
Løsning

- f har vertikale asymptoter i $x = \pm 1$
- f er oddet = $f(-x) = -f(x)$
- $x = 0$ er en enkelt nullpunkt
- f har en skrå asymptote $y = x$

$$\lim_{x \rightarrow \pm\infty} (f(x) - x) = 0$$

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





$$f(\sqrt{3}) = \frac{3\sqrt{3}}{2} \approx 2.6$$

