

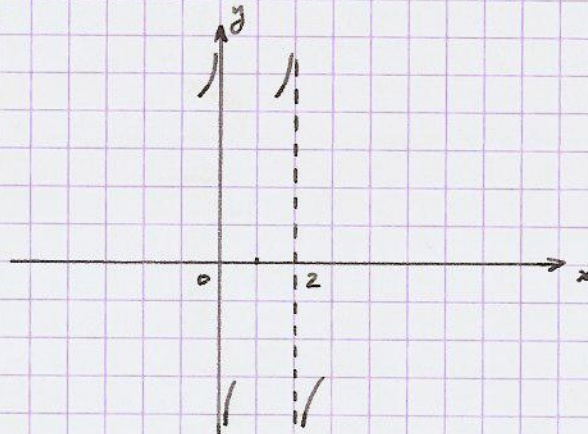
$$3) \quad f(x) = \frac{1-2x}{x^2-2x} = \frac{1-2x}{x \cdot (x-2)} \quad \text{dom } f = \mathbb{R} \setminus \{0, 2\}$$

$$1/ \quad \lim_{x \rightarrow 0} f(x) = \frac{1}{0^\pm} = \pm \infty$$

x		0	2
x^2-2x		+ 0	- 0 +

→ $AV_1 \equiv x=0$

$$2/ \quad \lim_{x \rightarrow 2} f(x) = \frac{-3}{0^+} = \pm \infty \quad \rightarrow \quad AV_2 \equiv x=2$$



$$4) \quad f(x) = \frac{x^2-3x}{(x-3)^2} \quad \text{dom } f = \mathbb{R} \setminus \{3\}$$

$$\lim_{x \rightarrow 3} f(x) = \frac{0}{0} = \lim_{x \rightarrow 3} \frac{x \cdot (x-3)}{(x-3) \cdot (x-3)}$$

$$= \lim_{x \rightarrow 3} \frac{x}{x-3} = \frac{3}{0^+} = +\infty$$

→ $AV \equiv x=3$

x		3
$x-3$		- 0 +

