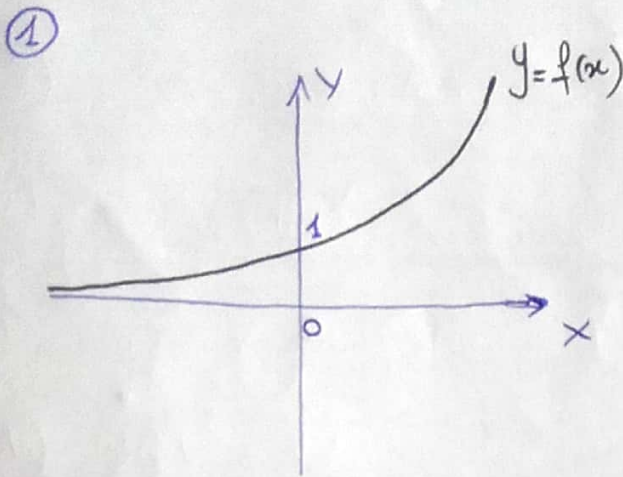
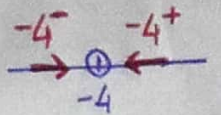


# ASINTOTI VERTICALI E ORIZZONTALI



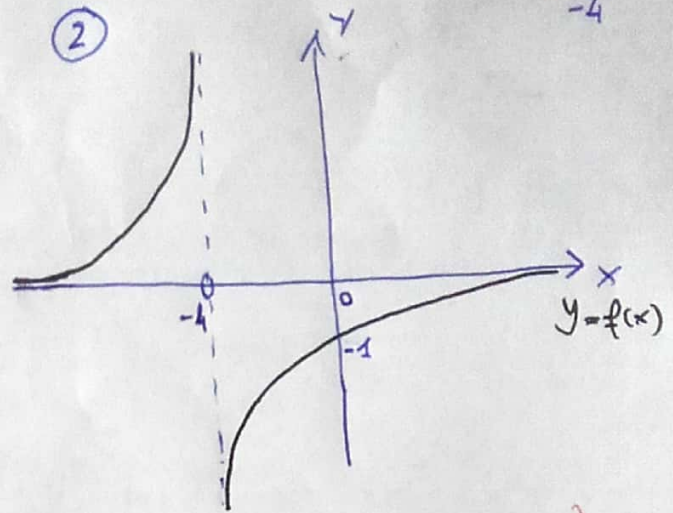
Dom:  $(-\infty, +\infty)$

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

$$\lim_{x \rightarrow +\infty} f(x) = +\infty$$

$y=0$  ASINTOTO ORIZZONTALE  
sinistro

Non ci sono asintoti verticali



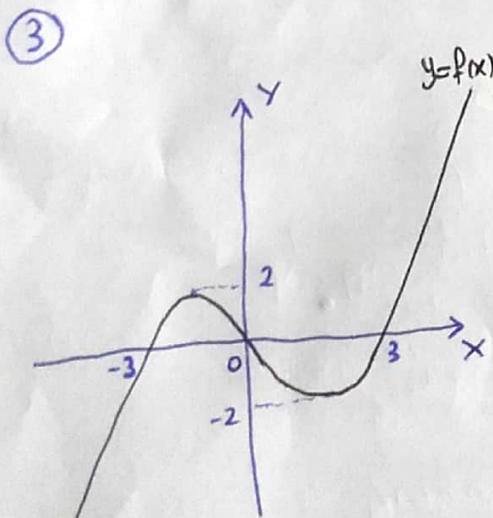
Dom:  $(-\infty, -4) \cup (-4, +\infty)$

$$\lim_{x \rightarrow -\infty} f(x) = 0 \rightarrow y=0 \text{ ASINTOTO ORIZZONTALE}$$

$$\lim_{x \rightarrow +\infty} f(x) = 0 \rightarrow \text{destro e sinistro}$$

$$\lim_{x \rightarrow -4^-} f(x) = +\infty \rightarrow x=-4 \text{ ASINTOTO VERTICALE}$$

$$\lim_{x \rightarrow -4^+} f(x) = -\infty \rightarrow \text{destro e sinistro}$$

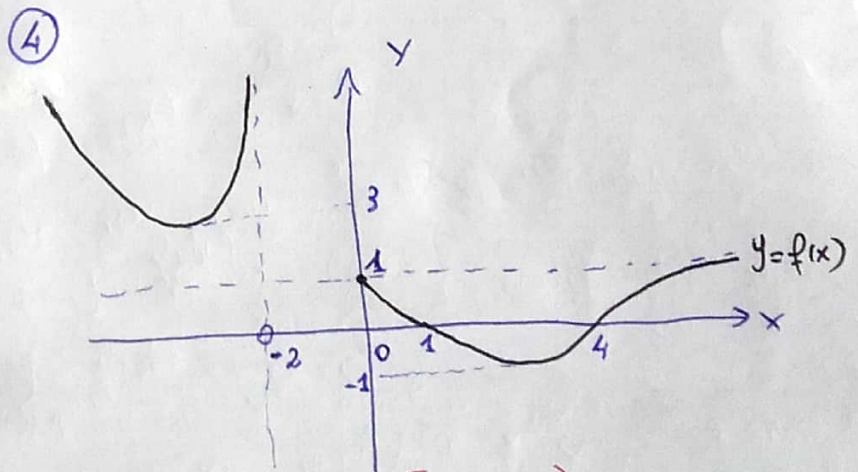


Dom:  $(-\infty, +\infty)$

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

$$\lim_{x \rightarrow +\infty} f(x) = +\infty$$

Non ci sono asintoti



Dom:  $(-\infty, -2) \cup [0, +\infty)$

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

$$\lim_{x \rightarrow +\infty} f(x) = 1$$

$$\lim_{x \rightarrow -2^-} f(x) = +\infty$$

$$\lim_{x \rightarrow 0^+} f(x) = 1$$

$y=1$  ASINTOTO ORIZZONTALE destro  
 $x=-2$  ASINTOTO VERTICALE sinistro