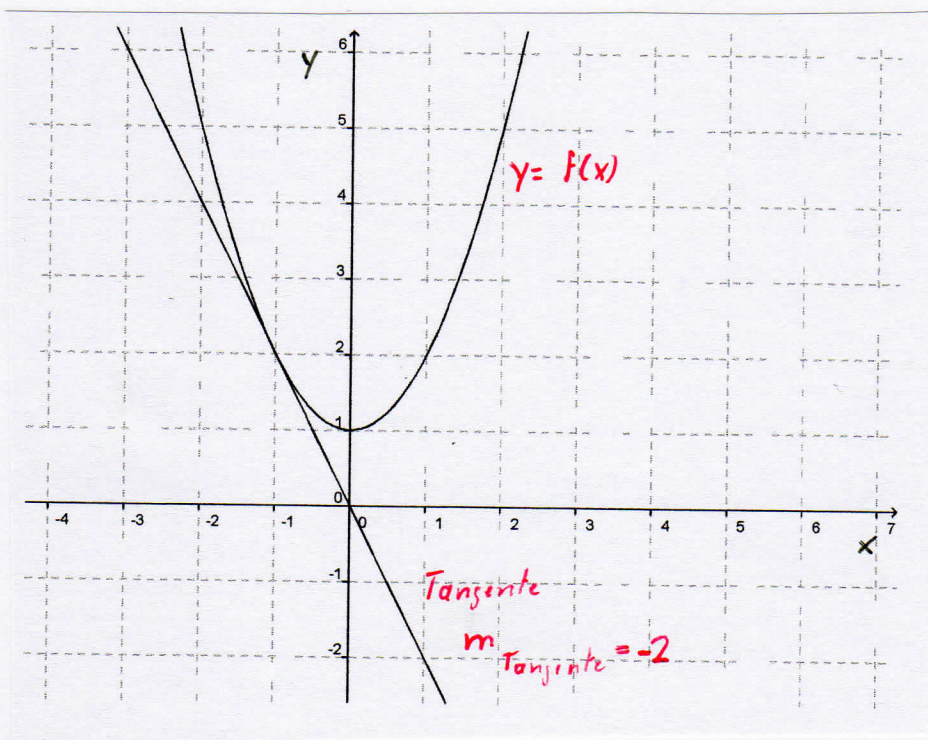


a) $f(x) = x^2 + 1$, $x_0 = -1$

$$m_{-1}(h) = \frac{(-1+h)^2 + 1 - \{(-1)^2 + 1\}}{h}$$

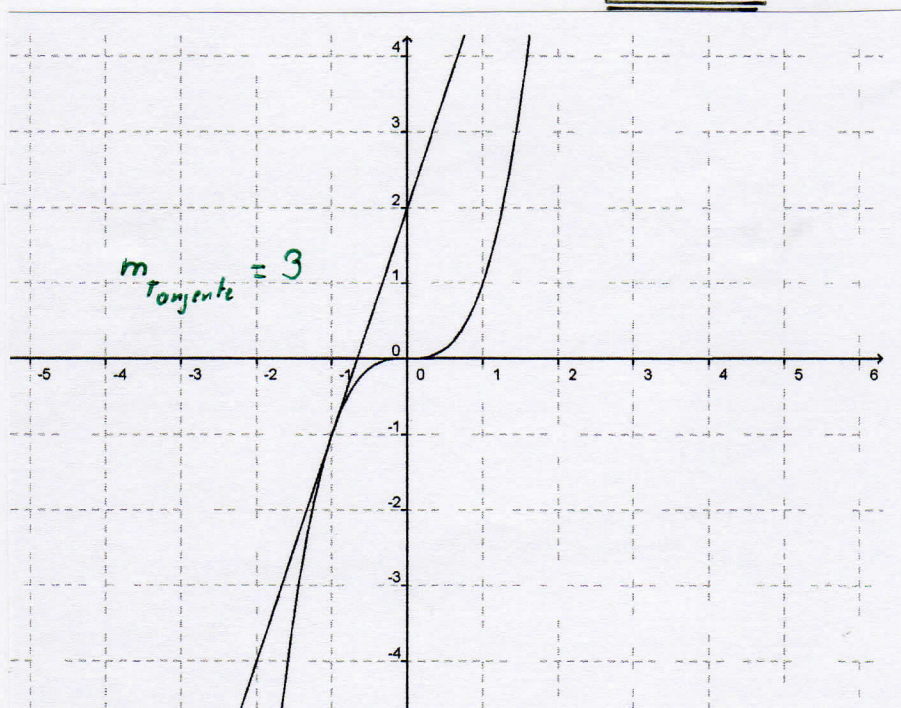
$$m_{-1}(10^{-6}) = \frac{(-1+10^{-6})^2 + 1 - \{(-1)^2 + 1\}}{10^{-6}} = \underline{\underline{-1,999\ 999 \approx -2 = f'(-1)}}$$



b) $f(x) = x^3$, $x_0 = -1$

$$m_{-1}(h) = \frac{(-1+h)^3 - \{(-1)^3\}}{h} \Rightarrow m_{-1}(10^{-6}) = \frac{(-1+10^{-6})^3 - (-1)^3}{10^{-6}} \approx \underline{\underline{2,9999}}$$

$f'(-1) = 3$



c) $f'(-1) = -1$

d) $f'(-1) = -3$