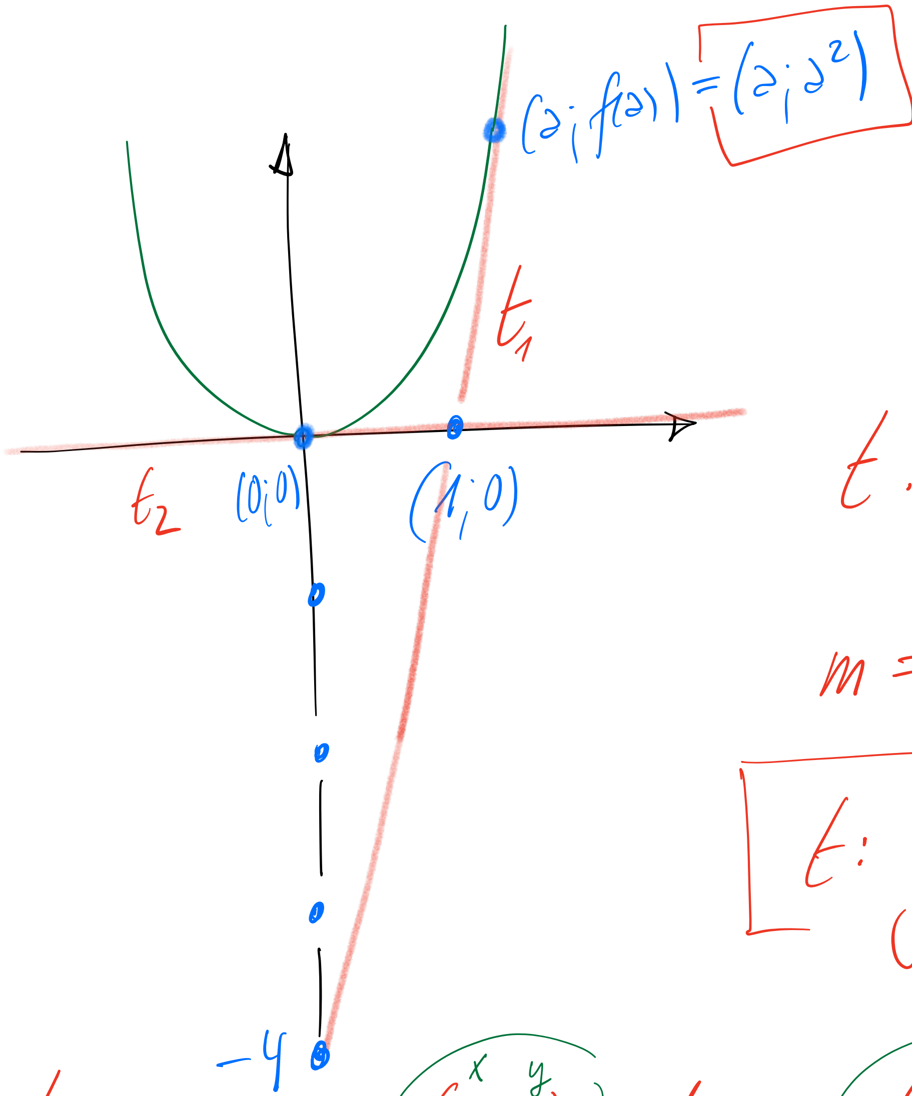

$f(x) = x^2 \;/\; f'(x) = 2x$

$f(a) = a^2$

$t: y = mx + h$

$m = f'(a) = 2 \cdot a$

$$\boxed{t: y = 2a \cdot x + h}$$

t passe par $(1; 0)$ et par $(a; a^2)$:

$y = 0 \quad x = 1 \quad y = 2ax + h$

$$\boxed{y = 2ax - 2a}$$

$0 = 2a \cdot 1 + h$

$0 = 2a + h$

$-2a = h$

$\Big\}\; h = -2a$

t passe par $(\underset{x}{a}, \underset{y}{a^2})$ et $\boxed{y = 2ax - 2a}$

$$a^2 = 2a \cdot a - 2a \iff a^2 = 2a^2 - 2a$$

$$\iff a^2 - 2a = 0$$

$$\Delta = \frac{2 \pm \sqrt{4}}{2} \begin{cases} 2 \\ 0 \end{cases}$$

$\Rightarrow$ $t_1 : y = 4x - 4$

$t_2 : y = 2 \cdot 0 \cdot x - 2 \cdot 0 = 0$

$f(x)$ $\quad f'(x)$ $\quad t$ par $(x_0; y_0)$ et $(a; f(a))$

$$t: y = f'(a) \cdot x + h$$

$$f(a) = f'(a) \cdot a + h \Leftrightarrow h = f(a) - f'(a) \cdot a$$

$$\Rightarrow t: y = f'(a) \cdot x + f(a) - f'(a) \cdot a$$

Equation : $\boxed{y_0 = f'(a) \cdot x_0 + f(a) - f'(a) \cdot a}$