ETUDE D'UNE FONCTION

3.2.3 à 3.2.5

1) $f(x) = ax + b$ / AFFINE

3.3.3 à 3.3.6

2) $f(x) = ax^2 + bx + c$ / QUADRATIQUE (formulaire p.8)

a) $ED_f = \mathbb{R}$

b) Zéros $\quad x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

3.3.7 à 3.3.20

c) Signe

d) Graphe

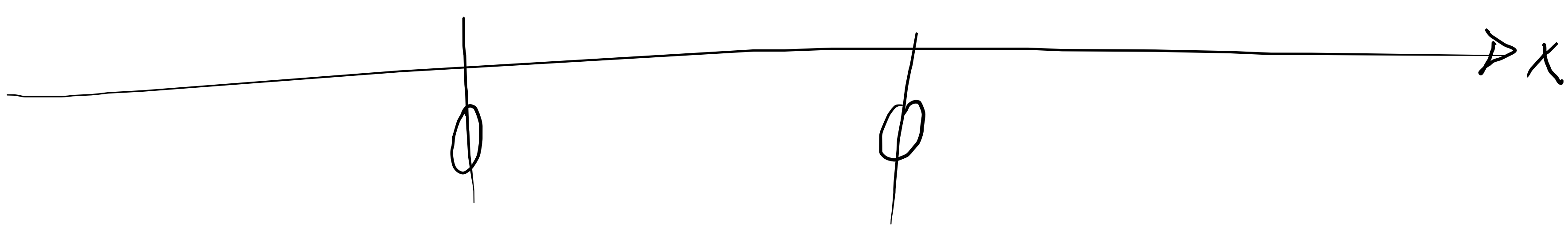
$6x^2 - x - 2$

> 0

$= 0$

< 0

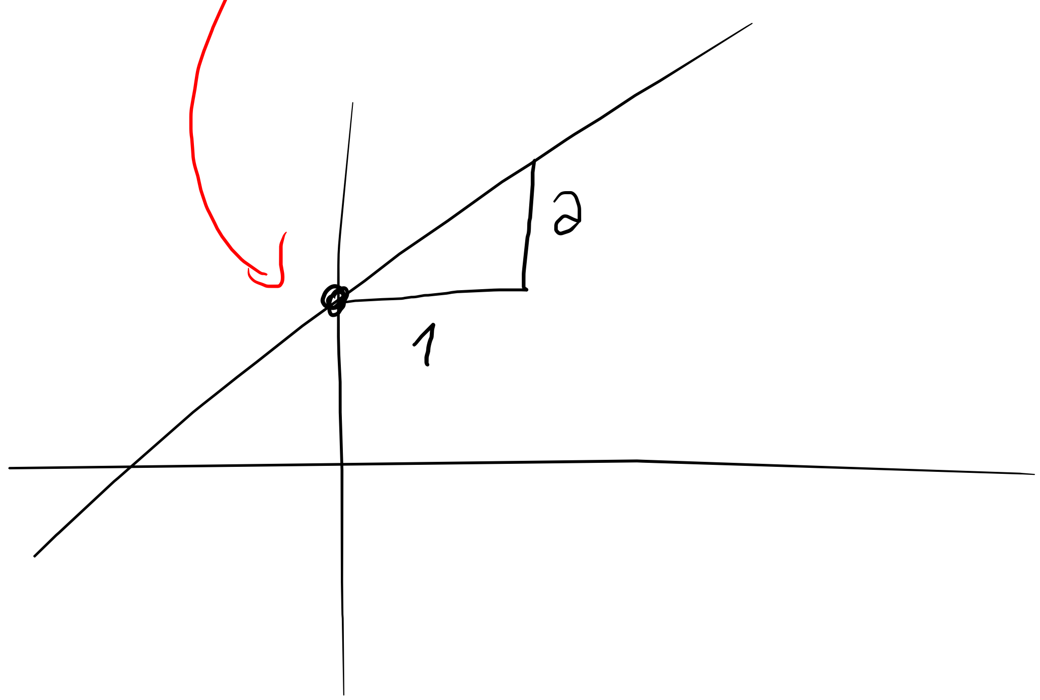
$$x = \frac{1 \pm \sqrt{25}}{2}$$



$f(x) = ax + b$

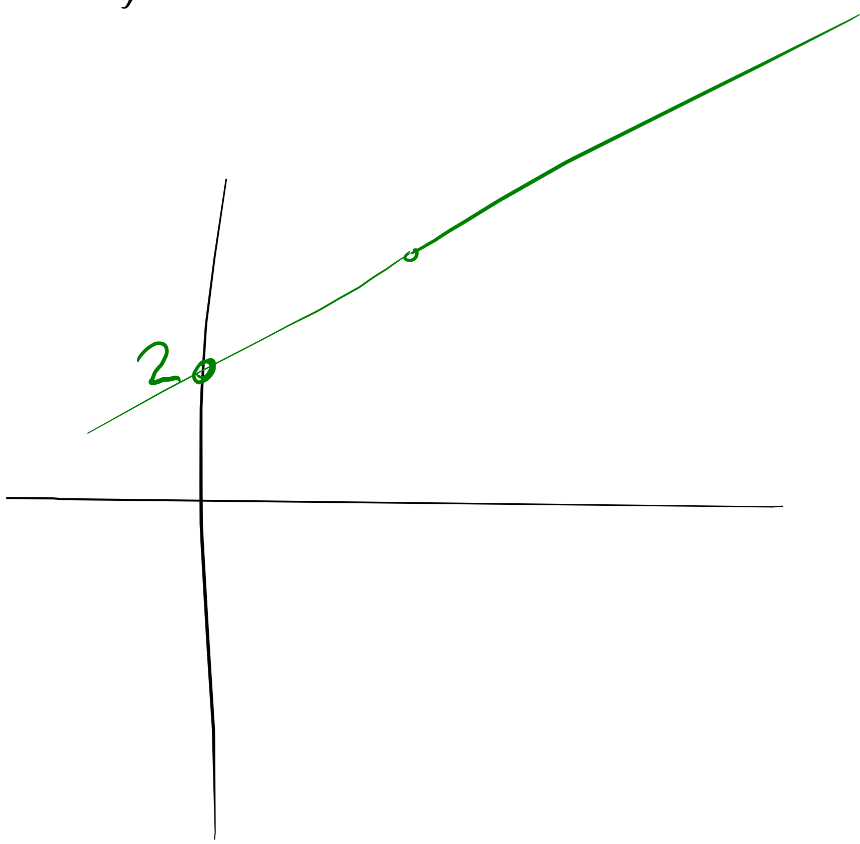
pente

ordonnée à l'origine

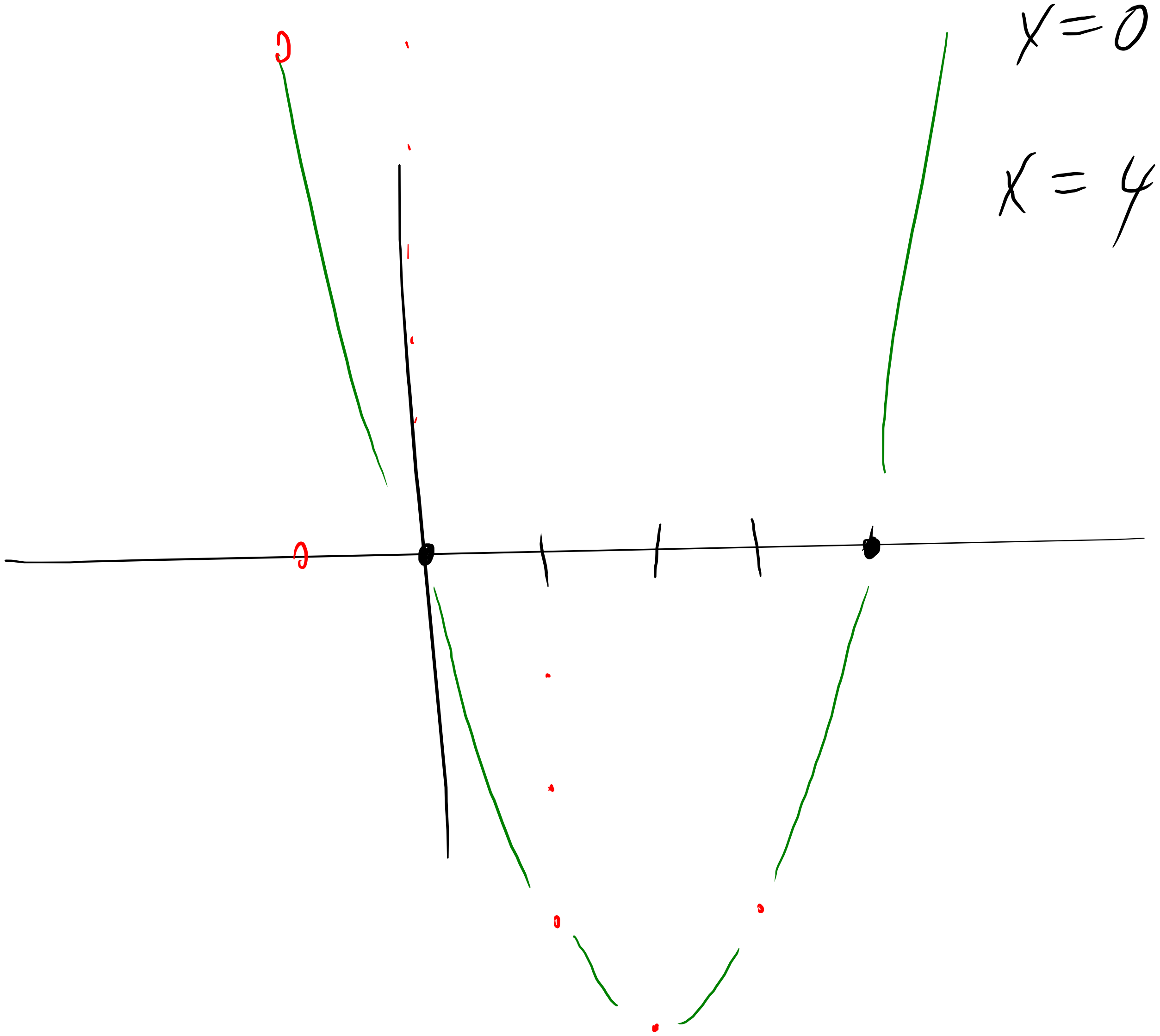


$a = \frac{1}{2}$

$\Rightarrow f(x) = \frac{1}{2}x + b$



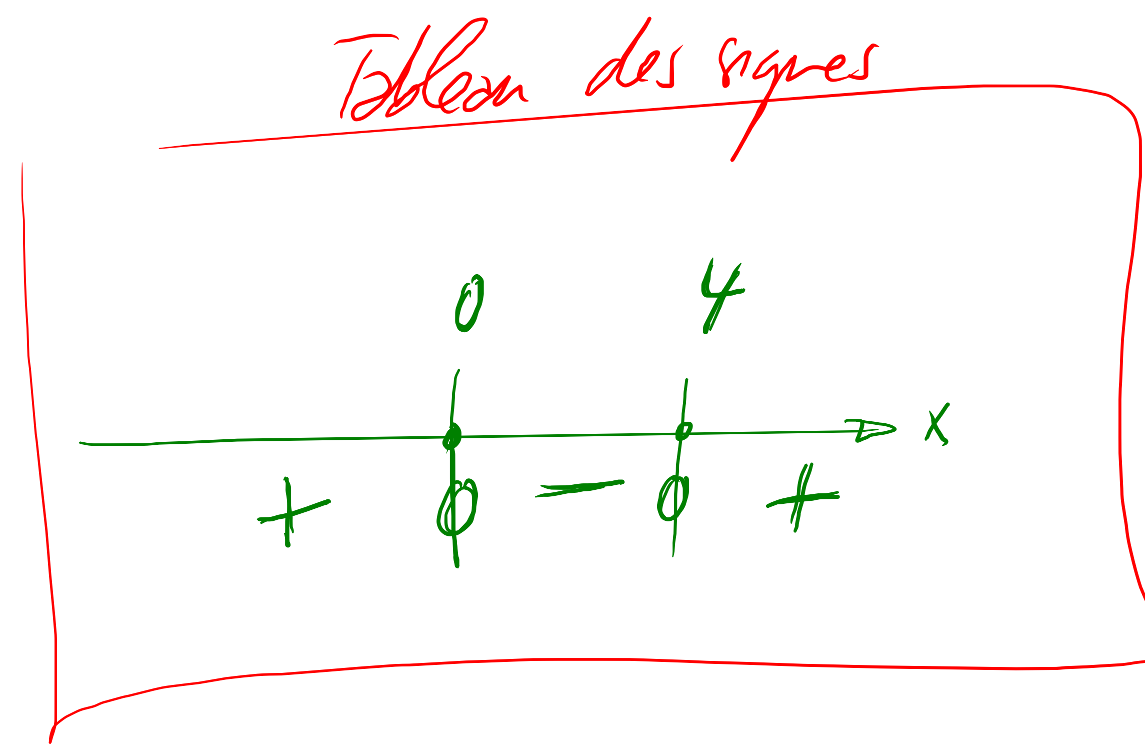
$$x^2 - 4x = 0 \iff x(x-4) = 0$$



$x = 0$ $(0;0)$ sur le graphe

$x = 4$ $(4;0)$ "

Tableau des signes

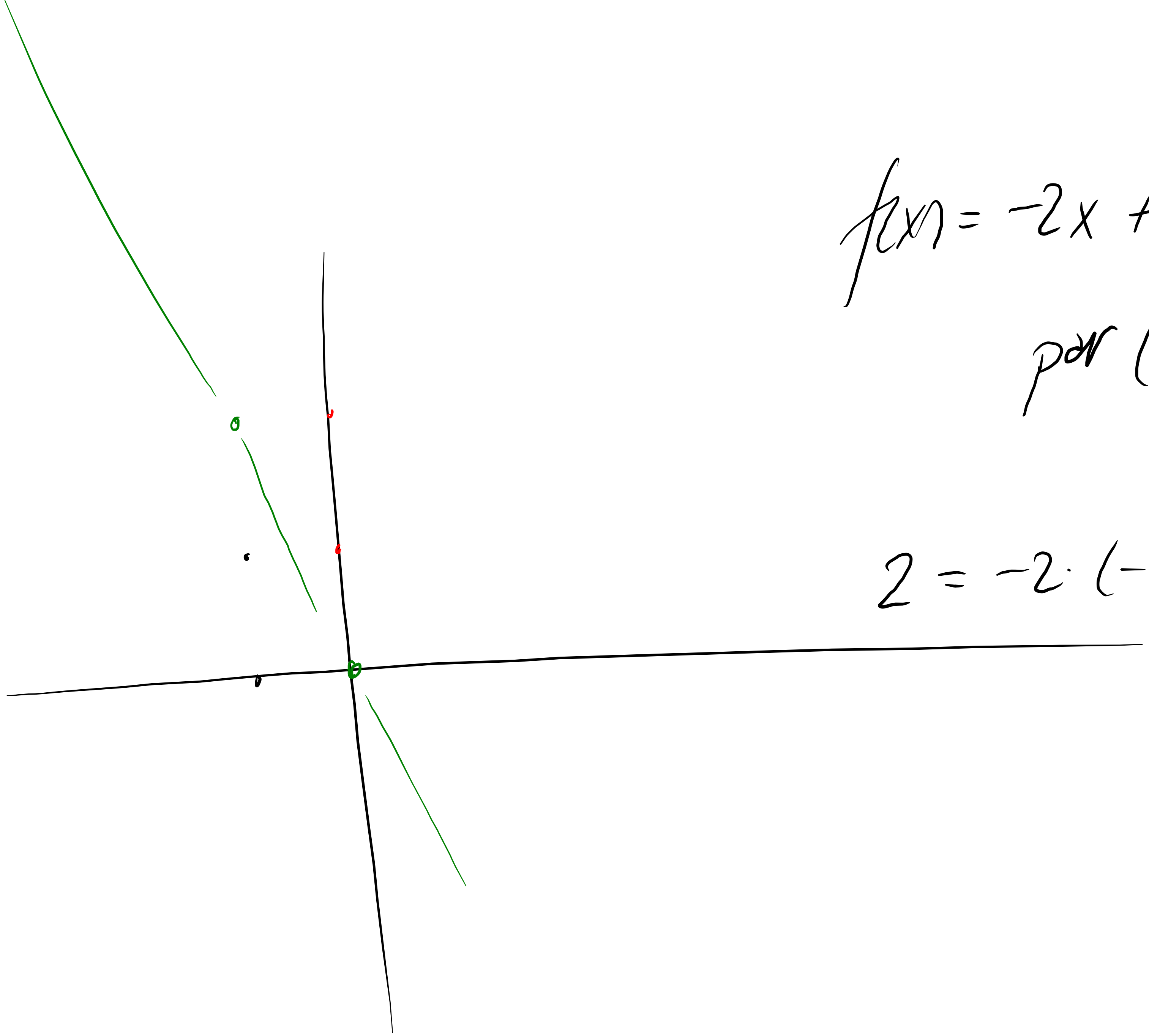


$f(x) = 2x + b$

pente

Le point $(-3; -1)$ est sur le graphe de f.

$-1 = 2 \cdot (-3) + b$



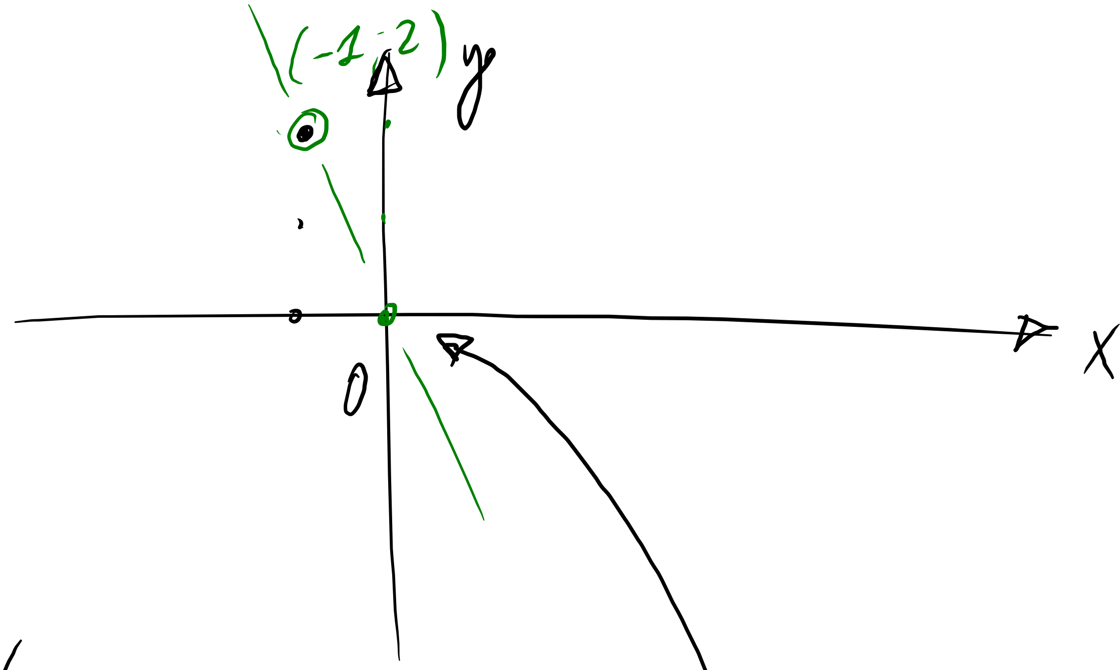
$f(x) = -2x + b$

par $(-1;2)$

$2 = -2\cdot(-1) + b \Leftrightarrow 2 - 2 = b$

$b = 0$

$f(x) = a \cdot x + b$



$f(-1) = 2$

pente : -2

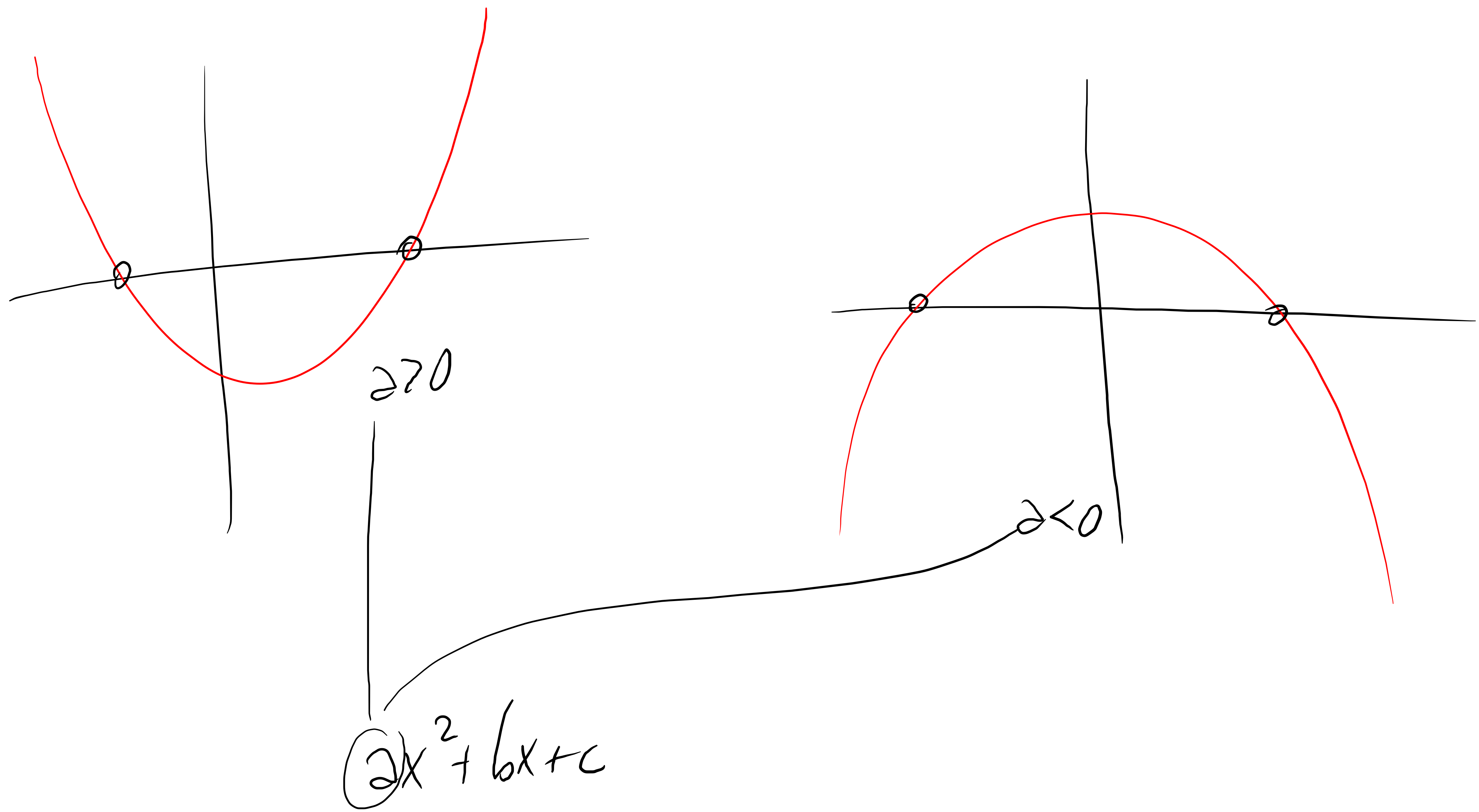
$f(x) = -2x + b$

$f(-1) = 2$

$-2 \cdot (-1) + b = 2$

$b = 0$

$$f(x) = \begin{cases} \\ \frac{1}{2}x + 2 \leftarrow \boxed{\text{si } x \geq 1} \end{cases}$$



a>0
a<0
ax²+bx+c