

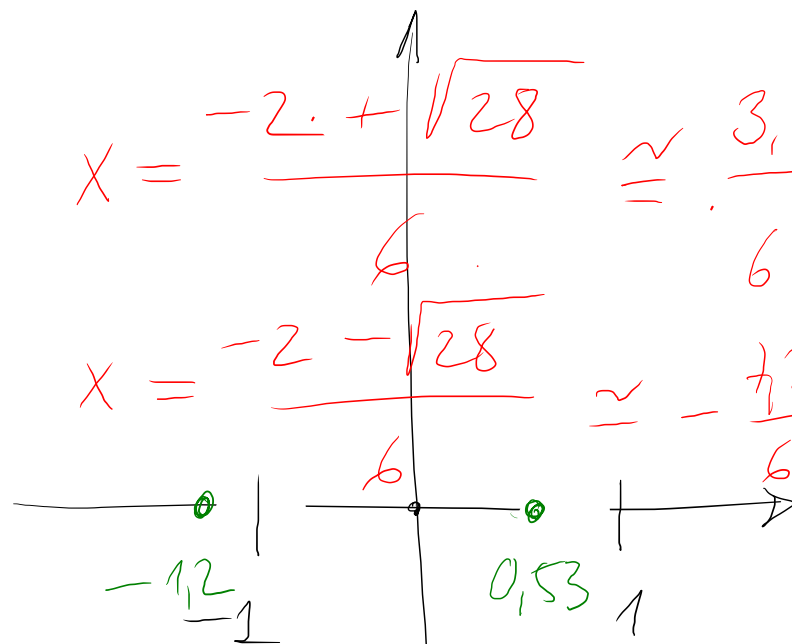
Fonction quadratique

$$f(x) = 3x^2 + 2x - 2$$

$$\Delta = 4 - 4 \cdot 3 \cdot (-2) = 4 + 24 = 28$$

$$x = \frac{-2 + \sqrt{28}}{6} \approx \frac{3,2}{6} \approx 0,53$$

$$x = \frac{-2 - \sqrt{28}}{6} \approx \frac{-7,2}{6} \approx -1,2$$



$$2x^2 + bx + c = 0$$

$$\Delta = b^2 - 4ac$$

$$x = \frac{-b \pm \sqrt{\Delta}}{2a}$$

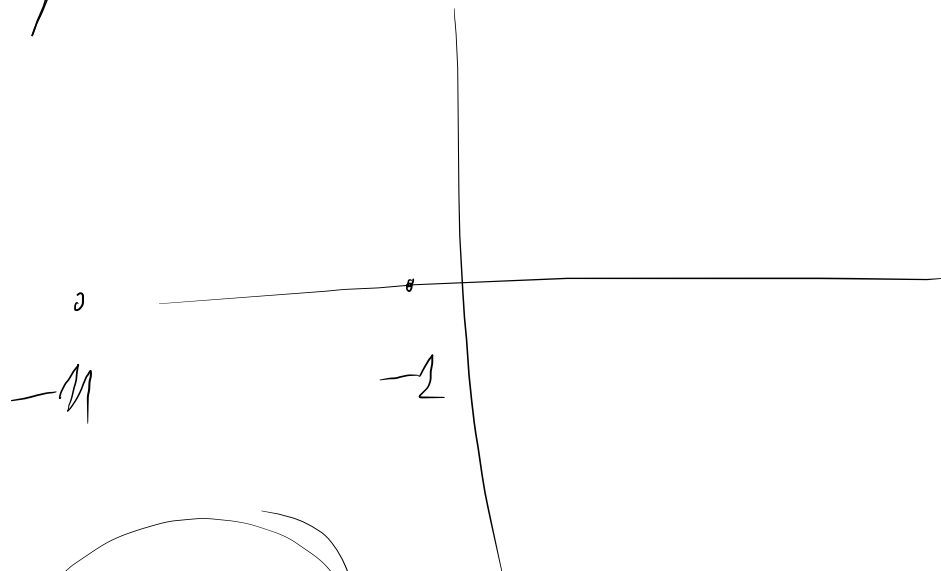
$$\frac{-b + \sqrt{\Delta}}{2a}$$

$$\frac{-b - \sqrt{\Delta}}{2a}$$

Trouver les zéros des paraboles de l'exercice 2.5
(abcdef)

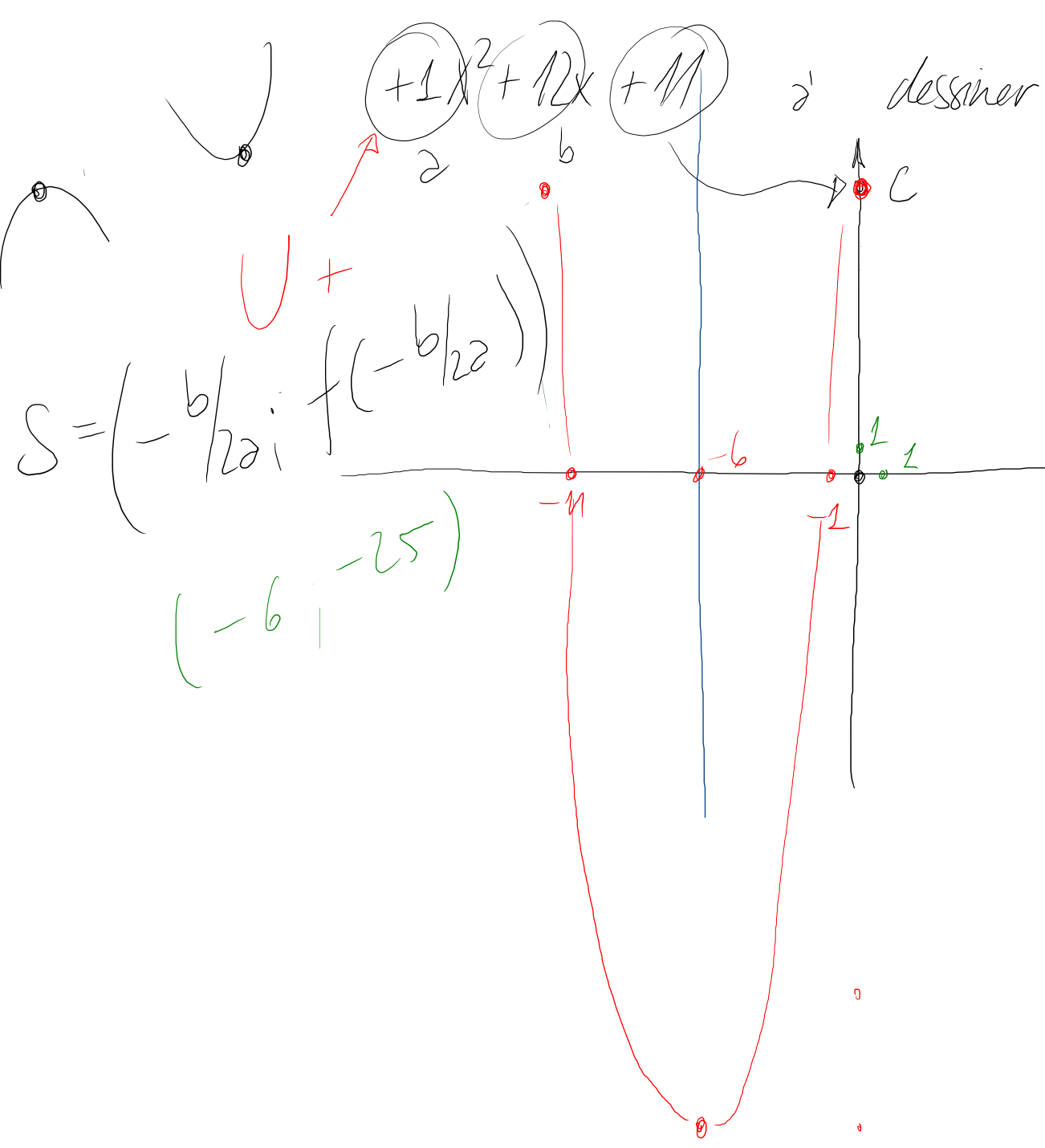
$$\textcircled{+1}x^2 + \textcircled{12}x + \textcircled{11}$$

a b c



$$\Delta = b^2 - 4ac = \textcircled{12^2} - \textcircled{4 \cdot 1 \cdot 11} = 144 - 44 = 100$$

$$x = \frac{-b \pm \sqrt{\Delta}}{2a} = \begin{cases} \frac{-12 + \sqrt{100}}{2} = \textcircled{-1} \\ \frac{-12 - \sqrt{100}}{2} = \textcircled{-11} \end{cases}$$



$X = \begin{matrix} -1 \\ \text{VIÈTE} \\ -11 \end{matrix}$

$S\left(-\frac{b}{2a}; \downarrow\right)$

$(-6)^2 + 12(-6) + 11$
 $36 - 72 + 11 = -25$

$-\frac{12}{2 \cdot 1} = -\frac{6}{2} = -6$

$$a\left(-\frac{b}{2a}\right)^2 + b\left(-\frac{b}{2a}\right) + c =$$

$$a \frac{b^2}{4a^2} - \frac{b^2}{2a} + c =$$

$$\frac{b^2}{4a} - \frac{2b^2}{4a} + \frac{4ac}{4a} = \frac{-b^2 + 4ac}{4a} = -\frac{b^2 - 4ac}{4a} = -\frac{\Delta}{4a}$$