

TE f quadratique : 26. 11

Sommet: $-\frac{2}{6} = -\frac{1}{3}$ $-\frac{b}{2a} = x$

$$3x^2 + 2x - 3 =$$

$$B = \frac{1}{3}$$

$$B^2 = \left(\frac{1}{3}\right)^2$$

$$= \frac{1}{9}$$

$$3 \left(x^2 + \frac{2}{3}x - 1 \right) =$$

$$3 \left(x^2 + 2 \cdot x \cdot \left(\frac{1}{3}\right) - 1 \right) =$$

$$\boxed{A^2 + 2 \cdot A \cdot B + B^2} = (A+B)^2$$

$$3 \left(x^2 + 2 \cdot x \cdot \frac{1}{3} + \frac{1}{9} - \frac{1}{9} - 1 \right) =$$

$$A^2 + 2 \cdot A \cdot B + B^2 = (A+B)^2$$

$$x^2 + 2 \cdot x \cdot \frac{1}{3} + \left(\frac{1}{3}\right)^2$$

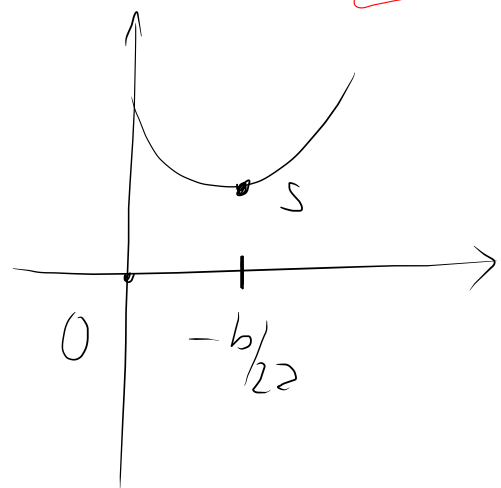
$$\downarrow$$

$$\left(x + \frac{1}{3}\right)^2$$

$$3 \left(\left(x + \frac{1}{3}\right)^2 - \frac{1}{9} - 1 \right) =$$

$$3 \left(\left(x + \frac{1}{3}\right)^2 - \frac{10}{9} \right) = \boxed{3 \cdot \left(x + \frac{1}{3}\right)^2 - \frac{10}{3}}$$

$$\boxed{-\frac{1}{3}} + \frac{1}{3} = 0$$



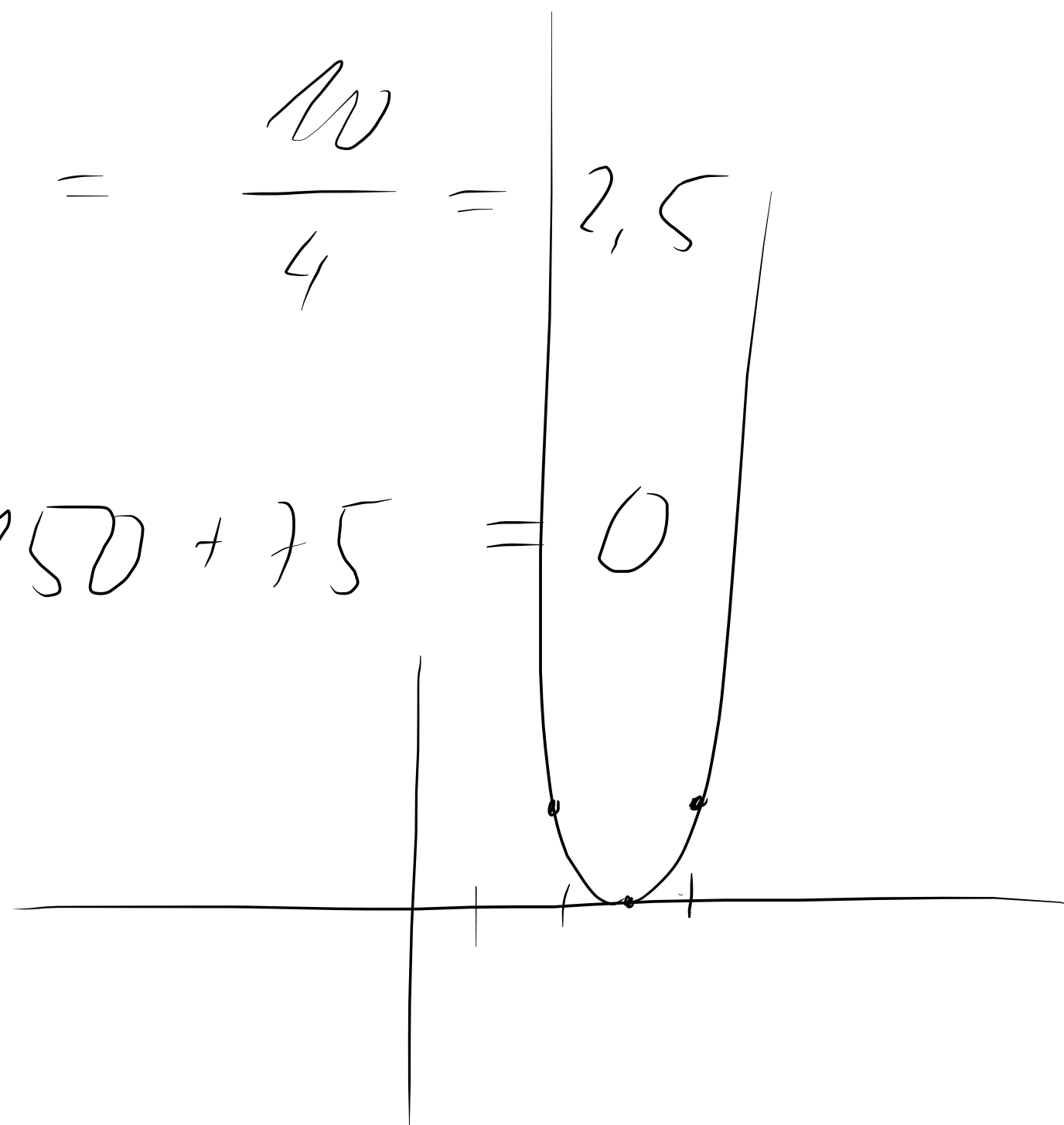
$$f(x) = 12x^2 - 60x + 75$$

$$\begin{aligned}\Delta &= 60^2 - 4 \cdot 12 \cdot 75 \\ &= 3600 - 3600 = 0\end{aligned}$$

$$-\frac{b}{2a} = \frac{60}{24} = \frac{10}{4} = 2,5$$

$$f(2,5) = 12 \cdot 6,25 - 150 + 75 = 0$$

$$(2,5; 0)$$



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

$$\Delta < 0$$

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

$$f(1) = -1 - 3 + 2 = -2$$

$$f(0) = -3$$

$$f(2) = -3$$

