

$a > 0: \cup$

$a < 0: \cap$

$ax^2 + bx + c$

x est la variable

a, b, c des nombres

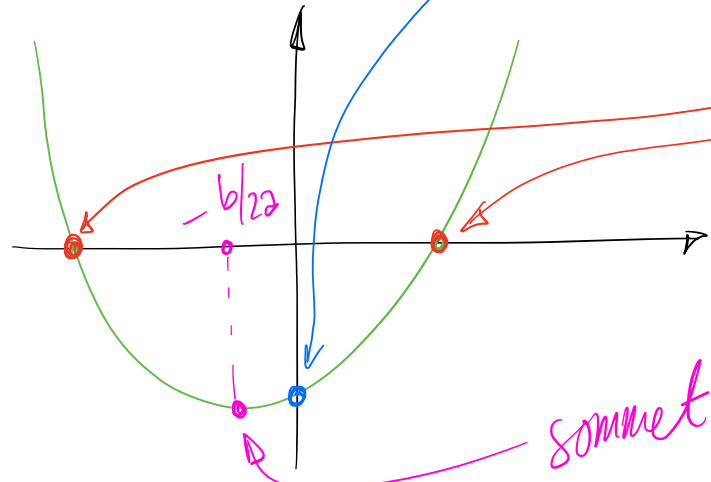
$ax^2 + bx + c = 0$

\Leftrightarrow

$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-b \pm \sqrt{\Delta}}{2a}$

fixés

$\Delta = b^2 - 4ac$



zeros

sommet: $(-\frac{b}{2a}, -\frac{\Delta}{4a})$

$a \cdot (-\frac{b}{2a})^2 + b \cdot (-\frac{b}{2a}) + c$
-b/2a dans x

U: 3 > 0

$3x^2 + 4x - 5$

a) dessiner

a = 3

b = 4

c = -5

(0; -5)

$x = \frac{-4 \pm \sqrt{16 - 4 \cdot 3 \cdot (-5)}}{2 \cdot 3} = \frac{-4 \pm \sqrt{76}}{6}$

$\Delta = b^2 - 4ac = 76$

$\sqrt{\Delta} \approx 8,7$

$\frac{-4 + \sqrt{76}}{6}$; $\frac{-4 - \sqrt{76}}{6}$

0,8

-2,1

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

$0,8 \approx \frac{4,7}{6}$

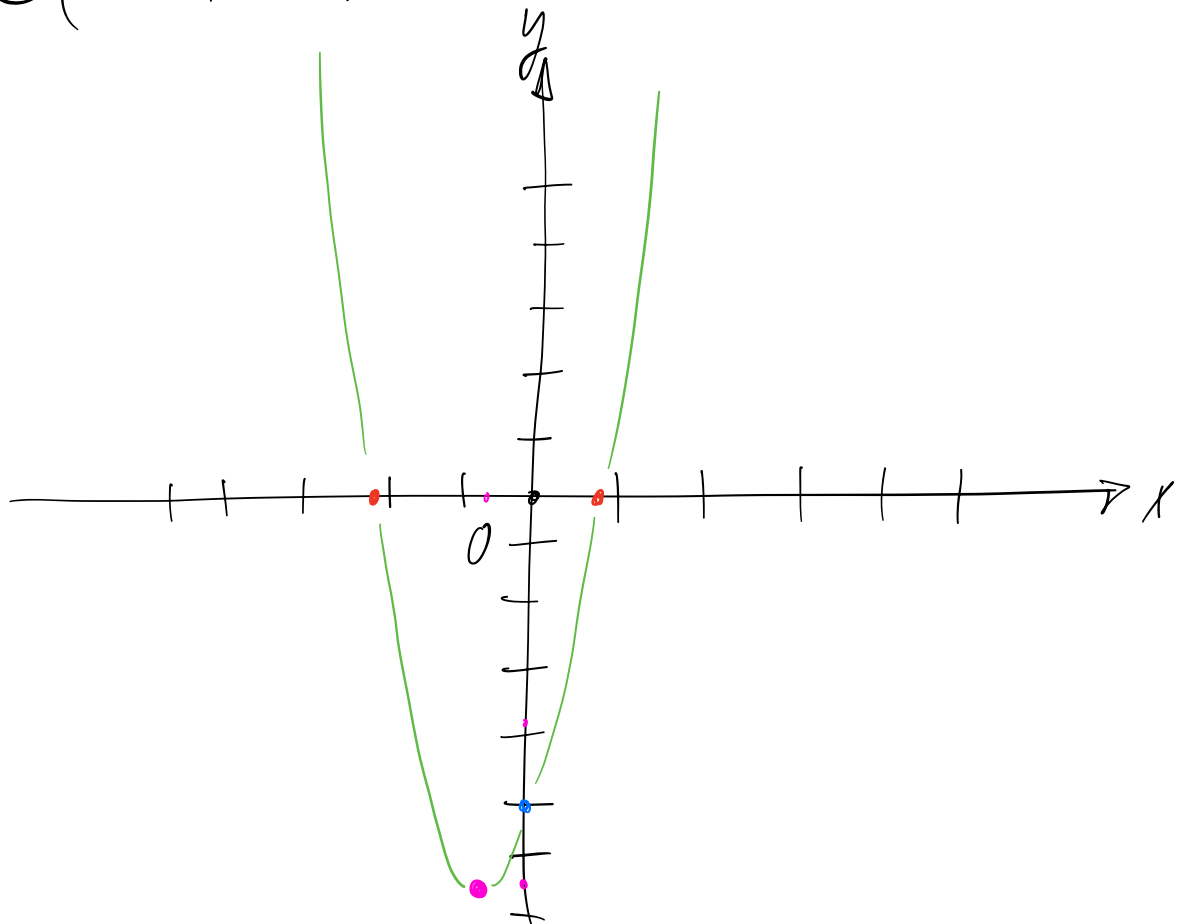
$= \frac{-4 + 8,7}{6}$; $\frac{-4 - 8,7}{6} = \frac{-12,7}{6} \approx -2,1$

$$\text{Sommet: } -\frac{b}{2a} = -\frac{4}{2 \cdot 3} = -\frac{4}{6} \approx -0,7$$

$$y_{\text{sommet:}} \quad 3 \cdot (-0,7)^2 + 4 \cdot (-0,7) - 5 = \frac{x \text{ du sommet}}{\text{---}}$$

$$3 \cdot 0,49 - 2,8 - 5 = 1,47 - 2,8 - 5 \\ \approx -6,3$$

$$S(-0,7; -3,8)$$



2.5 à 2.7 (→ 5 novembre)