$f(x) = x^3 - 7x - 6$ $\quad D(f) = \mathbb{R}$

CORTE CON EJE X $(f(x) = 0)$

$x^3 - 7x - 6 = 0$

	1	0	−7	−6
−1		−1	1	+6
	1	−1	−6	0

$x^2 - x - 6 = 0$

$$x = \frac{1 \pm \sqrt{(-1)^2 - 4 \cdot 1 \cdot (-6)}}{2 \cdot (1)}$$

$$x = \frac{1 \pm 5}{2} = \begin{cases} 3 \\ -2 \end{cases}$$

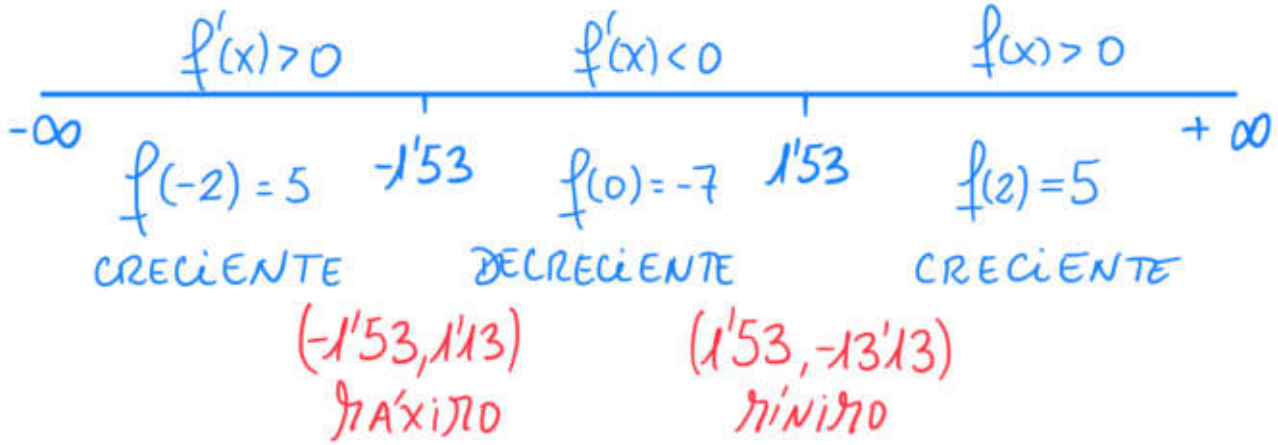
$(-2, 0)\ ;\ (-1, 0)\ ;\ (3, 0)$

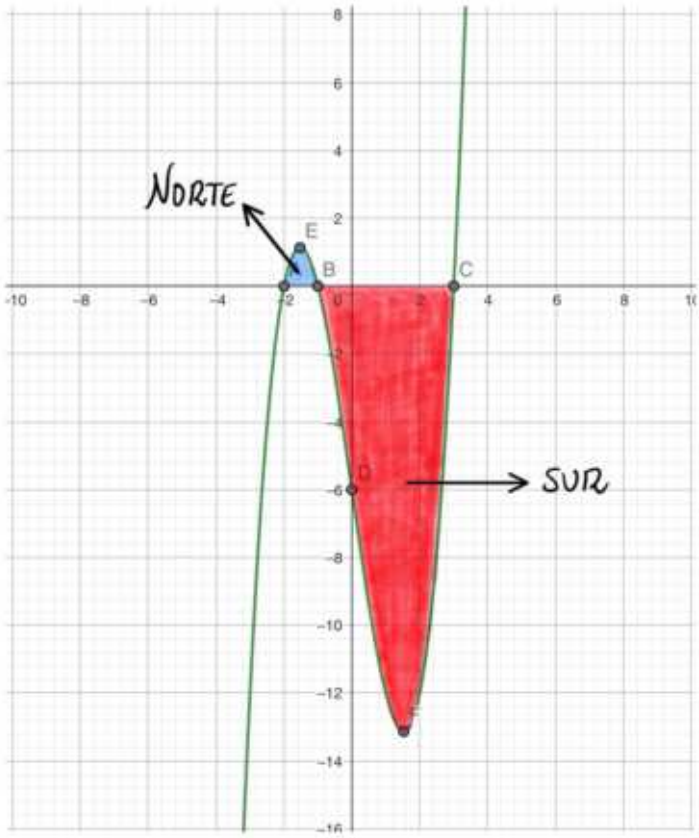
CORTE CON EJE Y $(x = 0)$

$f(0) = -6 \qquad (0, -6)$

MONOTONÍA Y EXTREMOS

$f'(x) = 3x^2 - 7 \Rightarrow f'(x) = 0 \Rightarrow 3x^2 - 7 = 0 \Rightarrow x = \pm 1'53$





$$A_N = \int_{-2}^{-1} (x^3 - 7x - 6)\,dx = \frac{x^4}{4} - \frac{7x^2}{2} - 6x \Big]_{-2}^{-1} =$$

$$= \left(\frac{1}{4} - \frac{7}{2} + 6\right) - \left(\frac{16}{4} - 14 + 12\right) =$$

$$= 2'75 - 2 = 0'75\ u^2$$

$$A_S = \left| \int_{-1}^{2} (x^3 - 7x - 6)\,dx \right| = \frac{x^4}{4} - \frac{7x^2}{2} - 6x \Big]_{-1}^{3} =$$

$$= \left| \left(\frac{81}{4} - \frac{63}{2} - 18\right) - \left(\frac{1}{4} - \frac{7}{2} + 6\right) \right| =$$

$$= \left| \frac{81}{4} - \frac{126}{4} - \frac{72}{4} - \frac{1}{4} + \frac{14}{4} - \frac{24}{4} \right| = 32\ u^2$$

TOTAL FINCA = $32'75\ u^2$

$\% A_N = \frac{0'75}{32'75} \cdot 100 = 2'29\ \%$

$\% A_S = 97'71\ \%$