

DISINQUAZIONI LOGARITMICHE

① $\log_{\frac{1}{2}}(4x-3) > \log_2 x$; ② $\frac{\ln \ln x}{2 - \ln x} > 0$

①

① $\log_{\frac{1}{2}}(4x-3) = \frac{\log_2(4x-3)}{\log_2 \frac{1}{2}} = \frac{\log_2(4x-3)}{-1} = -\log_2(4x-3)$

$-\log_2(4x-3) > \log_2 x$

C.E $\begin{cases} x > 3/4 \\ x > 0 \end{cases} \Rightarrow x > 3/4$

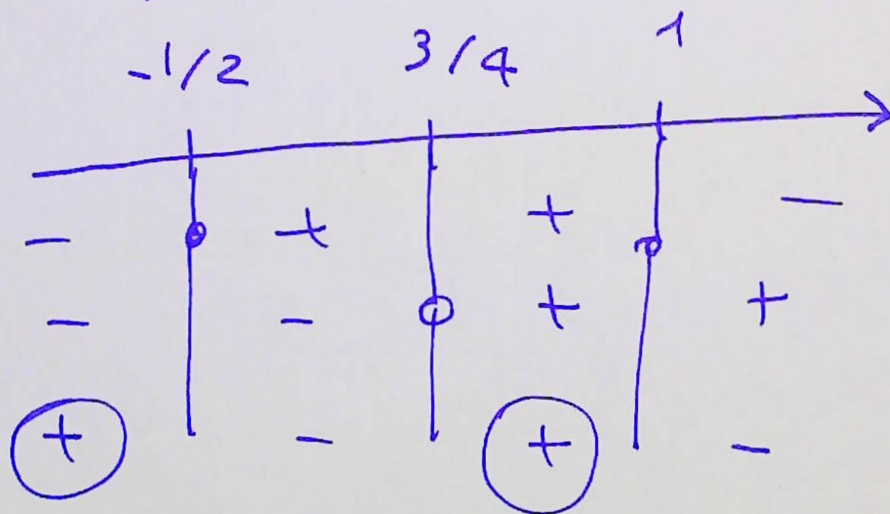
$\log_2(4x-3)^{-1} > \log_2 x$

$\frac{1}{4x-3} > x \quad \frac{1}{4x-3} - x > 0 \quad \frac{1-4x^2+3x}{4x-3} > 0$

$N > 0 \quad -4x^2+3x+1 > 0 \quad 4x^2-3x-1 = 0 \quad x_{1,2} = \frac{3 \pm \sqrt{9+16}}{8} = \frac{3 \pm 5}{8}$

$-\frac{1}{2} \leq x \leq 1$

$D > 0 \quad x > 3/4$



↑ NON ACCETTABILE
per C.E

$\Rightarrow \boxed{\frac{3}{4} < x \leq 1}$