Graphique de la fonction f pour $m=2$ et $\sigma=2$

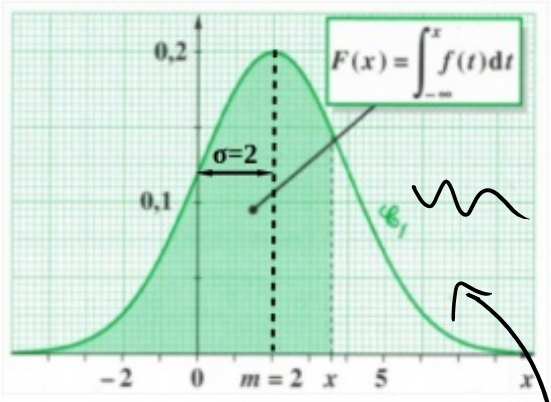
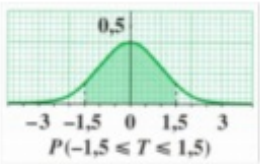
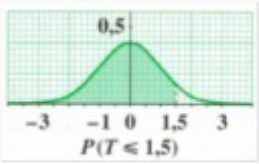
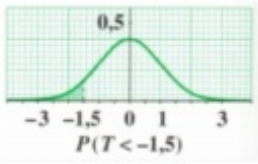


Illustration de probabilités







Dresser le tableau du signe de $\ln x + 2$

$x > 0 \qquad I =]0;+\infty[$

x	0	$+\infty$
$\ln x + 2$	‖	

$\ln x + 2 > 0$

$\ln x > -2$

$x > e^{-2}$

(+) ↓

à droite de $e^{-2} = \frac{1}{e^2}$

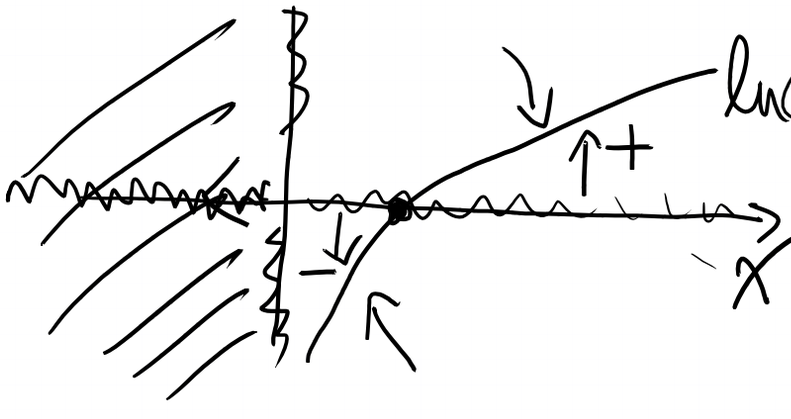
x		0		$\frac{1}{e^2}$		$+\infty$
$\ln x + 2$	∄	∄	−	0	+	

$f(x) = \ln(x+2)$ → Tab. de signe

$x+2 > 0$

$x > -2$

$I =]-2; +\infty[$



$\ln 2 > 0$

$\ln \frac{1}{2} < 0$

~~$\ln(-2)$~~

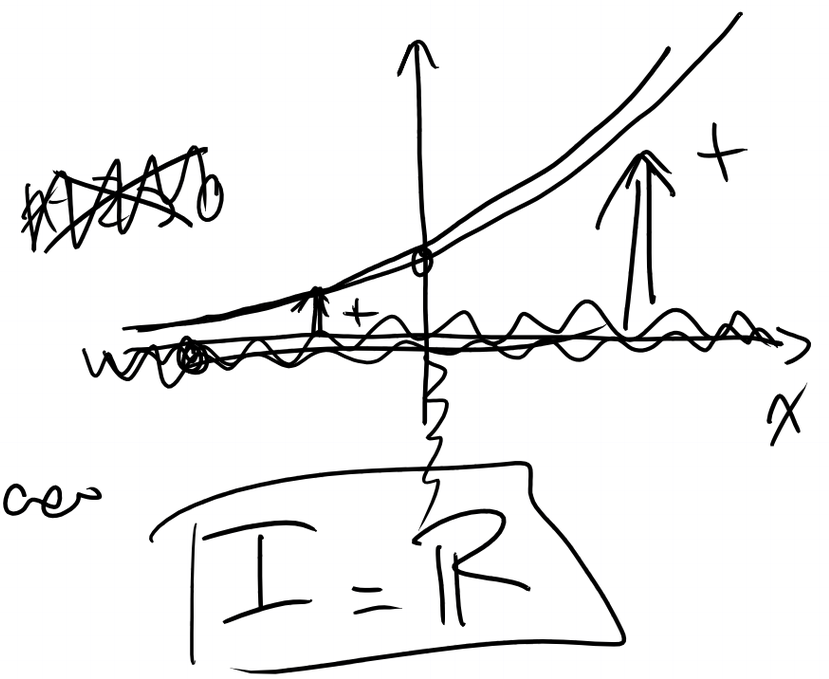
$\ln(x) \quad x > 0$

$\ln(x^2 - 3) \quad x^2 - 3 > 0$

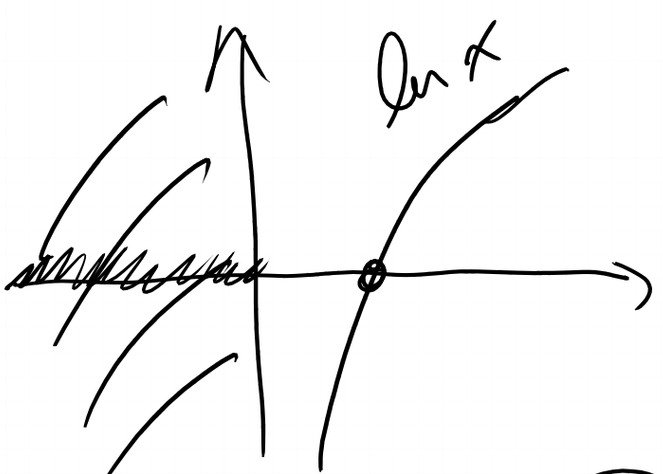
e^{x+2}

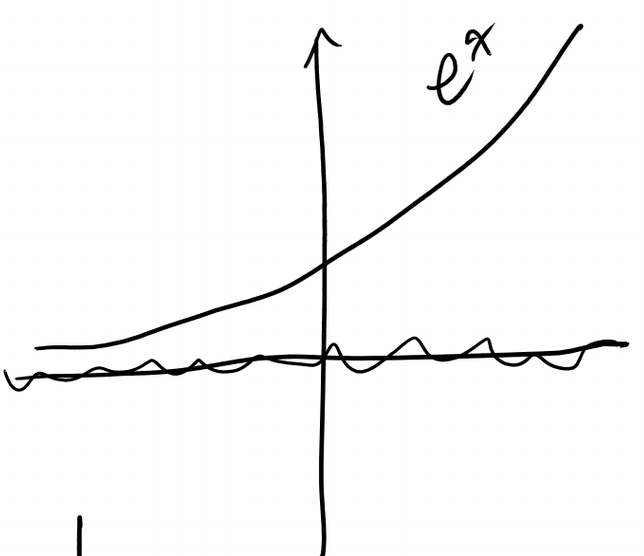
$e^{-2} \quad e^{0,3}$

$e^{\pi} \quad e^{-100}$



$I = \mathbb{R}$





$\ln(2 - x)$

$2 - x > 0$

$-x > -2$

$x < 2$

$I =]-\infty, 2[$

$\ln(x+2)$ $\quad x > -2$

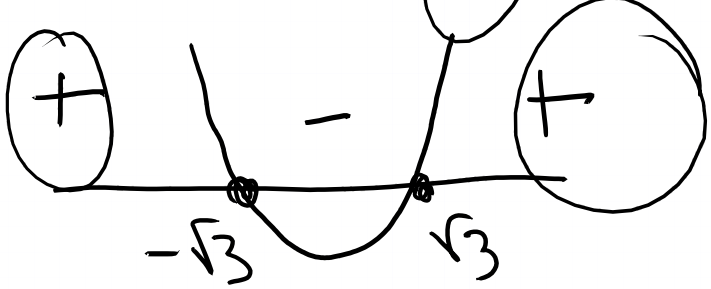
x	-2	-1	$+\infty$
$\ln(x+2)$	$\nexists$	$-$ 0 $+$	

$\ln(x+2) > 0$

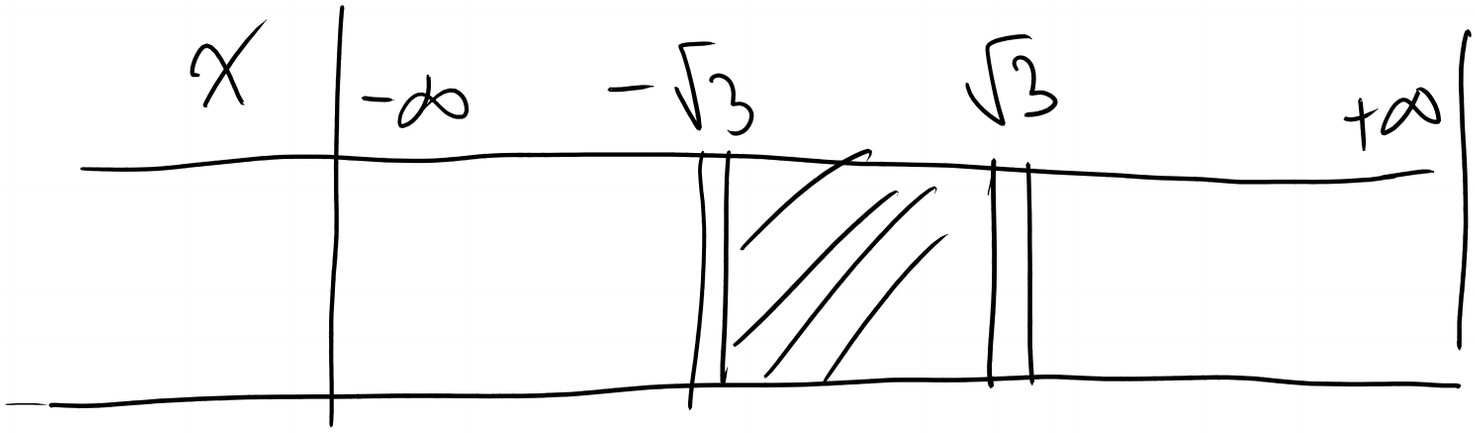
$x+2 > e^0$

$x+2 > 1 \quad x > -1$

$\ln(x^2-3)$ $\quad x^2-3 > 0$



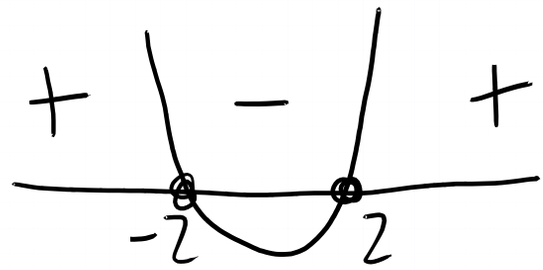
$I =]-\infty; -\sqrt{3}[\cup]\sqrt{3}; +\infty[$



$$\ln(x^2-3)>0$$

$$x^2-3>e^0$$

$$x^2-3>1 \qquad x^2-4>0$$



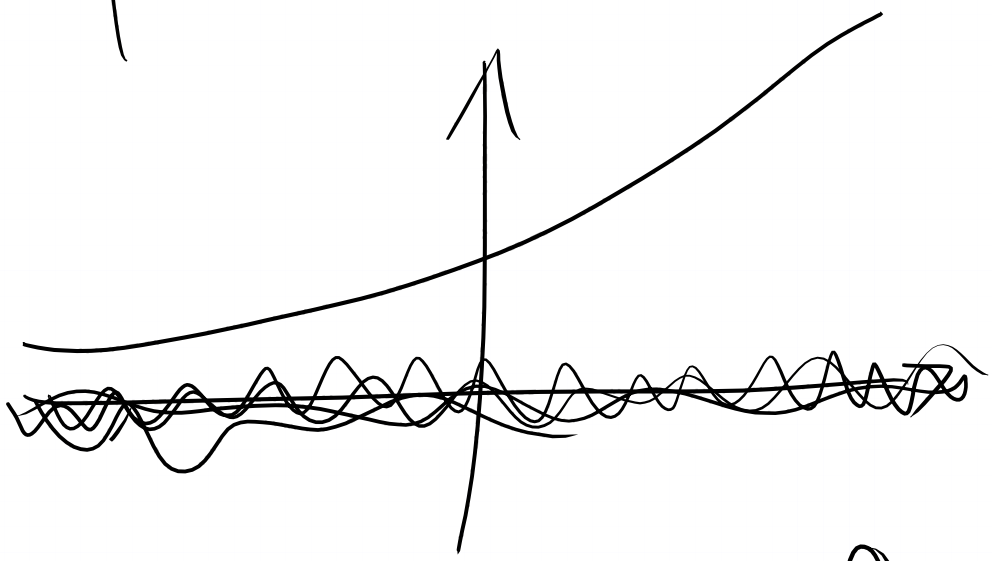
x	$-\infty$	-2	$-\sqrt{3}$		$\sqrt{3}$	2	$+\infty$
$\ln(x^2-3)$	+	0	−	‖	−	0	+

$$\ln(0-3)=\ln(-3)=\text{imp.}$$

x	$-\infty$	-2		2	$+\infty$
$\ln(x^2-3)$	$+$	ϕ	∄	ϕ	$+$

e^{2x+3}

$I = \mathbb{R}$



$\ln(2x+3)$

$2x+3 > 0$

$x > -3/2$

$2 \times (-2) + 3 = -1$

$\ln(-1) = \text{errore!!!}$

$$\ln(x-2) = \ln 3$$

$x-2>0$ $\quad x>2$

$$x-2=3$$

$$x=5 \rightarrow \underline{OK}$$

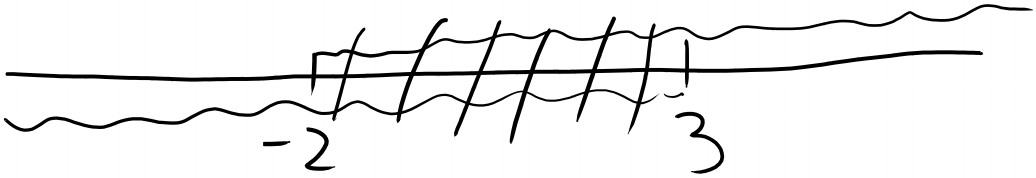
car $5>2$

$$\ln(x+2) = \ln(3-x)$$

$x+2>0$ $\quad$ $3-x>0$

$x>-2$ $\quad$ $-x>-3$

$x<3$



$$I =]-2;3[$$

$$x+2 = 3-x$$

$$2x = 1$$

$$\boxed{x = \frac{1}{2}} \Rightarrow \text{ok}$$

$$\ln(x+2) - \ln(3-x)$$

x		-2		$1/2$		3	
$\ln(x+2)-\ln(3-x)$	///	‖	$-$	0	$+$	‖	///

$$\ln(x+2) - \ln(3-x) > 0$$

$$\ln(x+2) > \ln(3-x)$$

$$x+2 > 3-x$$

$$2x > 1 \qquad x > 1/2$$