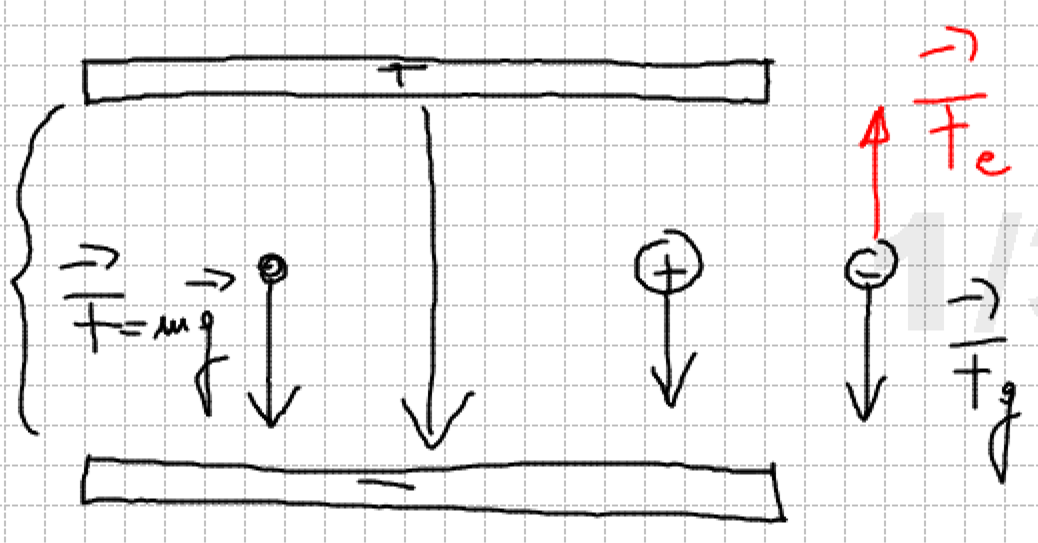
$C = \frac{Q}{V}$



$E = \frac{\Delta V}{\Delta s}$

$V = E \cdot d \Rightarrow E = \frac{V}{d}$

$F_g = F_e \Rightarrow mg = qE \Rightarrow$

$$q = \frac{mg}{E}$$

peso particella = resist. del mezzo

$$mg = \underbrace{6\pi\eta v a}_{\text{legge di Stokes}}$$

$m = \rho \cdot V$

$$\Downarrow$$

$$\rho \frac{4}{3}\cancel{\pi} a^{\cancel{3}\,2} \cdot g = 6\cancel{\pi}\eta v \cancel{a} \Rightarrow$$

$$a = \sqrt{\frac{9\eta v}{2\rho g}}$$

$1n \to 2d + 1u$

$1p \to 2u + 1d$

$u \quad d$ → $+\frac{2}{3}e \quad -\frac{1}{3}e$

$c \quad s$

$t \quad b$

glue

$$\Phi_S(\vec{E}) = \sum_{i=1}^{n} \cancel{\vec{E}_i} \cdot \hat{n}_i \Delta S_i$$
$\vec{B}$

$$V = \frac{1}{4\pi\varepsilon_0} \frac{Q}{R}$$

$C = \frac{Q}{V}$

per una sfera di raggio R:

$$\boxed{C = 4\pi\varepsilon_0 R}$$

1 farad (F) $= \frac{1\,C}{1\,V}$

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$$\lim_{x\to 5}\frac{3x}{x-2}=5$$

$\forall \varepsilon>0\ \exists I_\varepsilon(5)$ e corrispondentemente $\exists I_\delta(5)$ /
$\forall x \in I_\delta(5)$ si ha $|f(x)-5|<\varepsilon$

$$\left|\frac{3x}{x-2}-5\right|<\varepsilon$$

$$-\varepsilon<\frac{3x-5x+10}{x-2}<\varepsilon \qquad \begin{cases}\dfrac{-2x+10}{x-2}<\varepsilon\\[2mm] \dfrac{-2x+10}{x-2}>-\varepsilon\end{cases}$$

$$\begin{cases}① \ \dfrac{-2x+10-\varepsilon x+2\varepsilon}{x-2}<0\\[2mm] ② \ \dfrac{-2x+10+\varepsilon x-2\varepsilon}{x-2}>0\end{cases}$$

$N_1>0 \Rightarrow x(-2-\varepsilon)+2(5+\varepsilon)>0$

$-x(2+\varepsilon)+2(5+\varepsilon)>0$

$x(2+\varepsilon)-2(5+\varepsilon)<0$

$x<\dfrac{2(5+\varepsilon)}{2+\varepsilon}$

$D_1>0 \Rightarrow x>2$

$$\begin{array}{r|l} 2\varepsilon+10 & \varepsilon+2\\ \hline -2\varepsilon-4 & 2\\ \hline // \quad 6 & \end{array}$$

$$\frac{2(\cancel{\varepsilon+2})}{\cancel{2+\varepsilon}}+\frac{6}{2+\varepsilon}=\frac{2\varepsilon+10}{2+\varepsilon}$$

		2		$\frac{2(5+\varepsilon)}{2+\varepsilon}$		x
N_1	+		+	0	−	
D_1	−	0	+		+	
N_1/D_1	−	∄	+	0	−	

$$\frac{-2x+10+\varepsilon x-2\varepsilon}{x-2}>0$$

$N_2>0 \Rightarrow x(-2+\varepsilon)+2(5-\varepsilon)>0$

$-x(2-\varepsilon)+2(5-\varepsilon)>0$

$x(2-\varepsilon)-2(5-\varepsilon)<0$

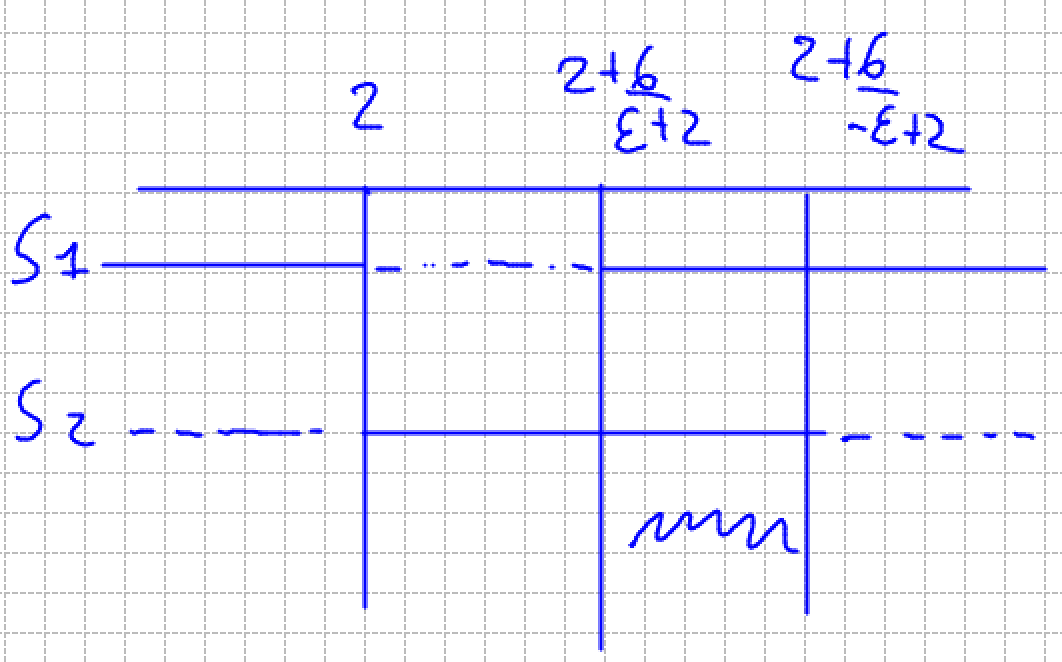
$x<\dfrac{2(5-\varepsilon)}{2-\varepsilon}$

$D_2>0 \Rightarrow x>2$

		2		$2+\frac{6}{-\varepsilon+2}$		x
N_2	+		+	0	−	
D_2	−	0	+		+	
N/D	−	∄	+	0	−	

$$\begin{array}{r|l} -2\varepsilon+10 & -\varepsilon+2\\ \hline +2\varepsilon-4 & 2\\ \hline // \quad 6 & \end{array}$$

$$2+\frac{6}{-\varepsilon+2}$$



$$2+\frac{6}{2+\varepsilon}<x<2+\frac{6}{-\varepsilon+2}$$

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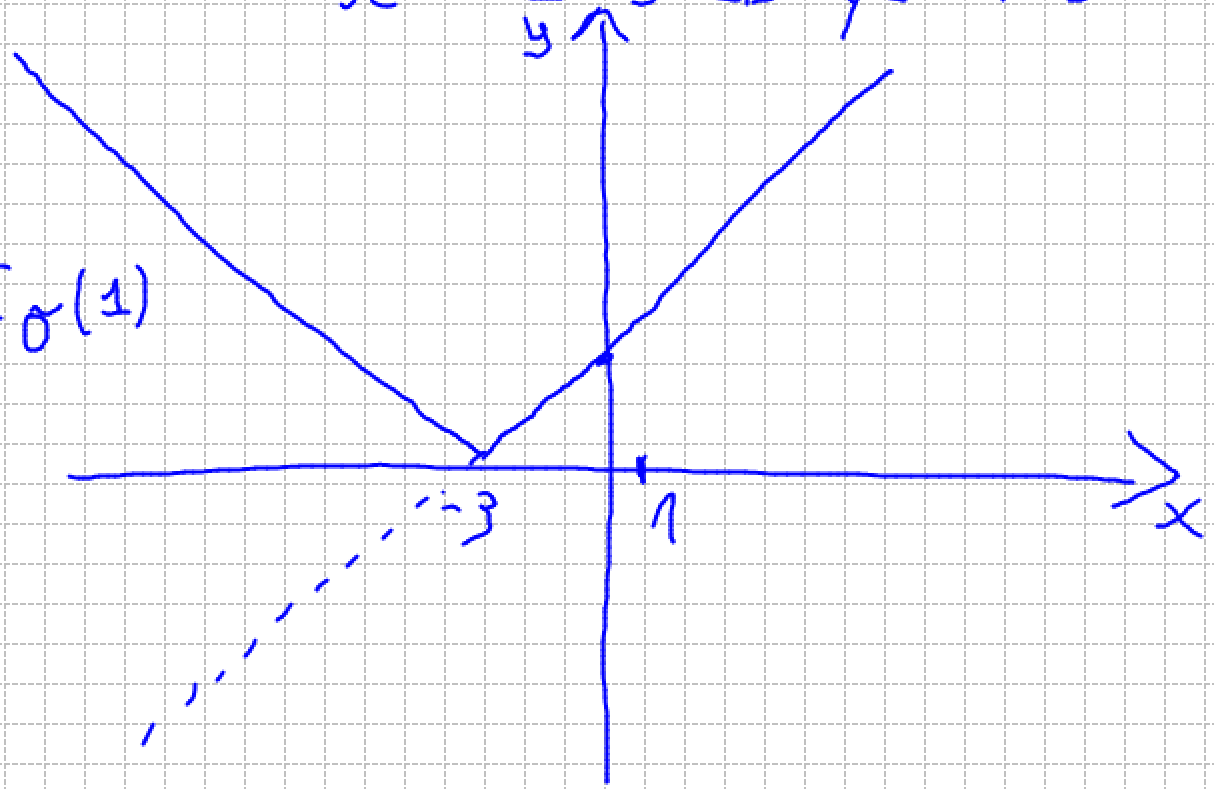
$$\lim_{x \to 1} |x+3| = 4$$

$$\lim_{x \to 1} (x+3) = 4$$

$y = |x+3|$

se $x \geq -3 \Rightarrow y = x+3$

se $x < -3 \Rightarrow y = -x-3$



$\forall \varepsilon > 0 \ \exists \ I_\varepsilon(4)$ e corrispondentemente $\exists \ I_\delta(1) \mid \forall x \in I_\delta(1)$ si ha: $|f(x) - 4| < \varepsilon$

$$|x+3-4| < \varepsilon$$

$$-\varepsilon < x-1 < \varepsilon$$

$$-\varepsilon + 1 < x < \varepsilon + 1$$