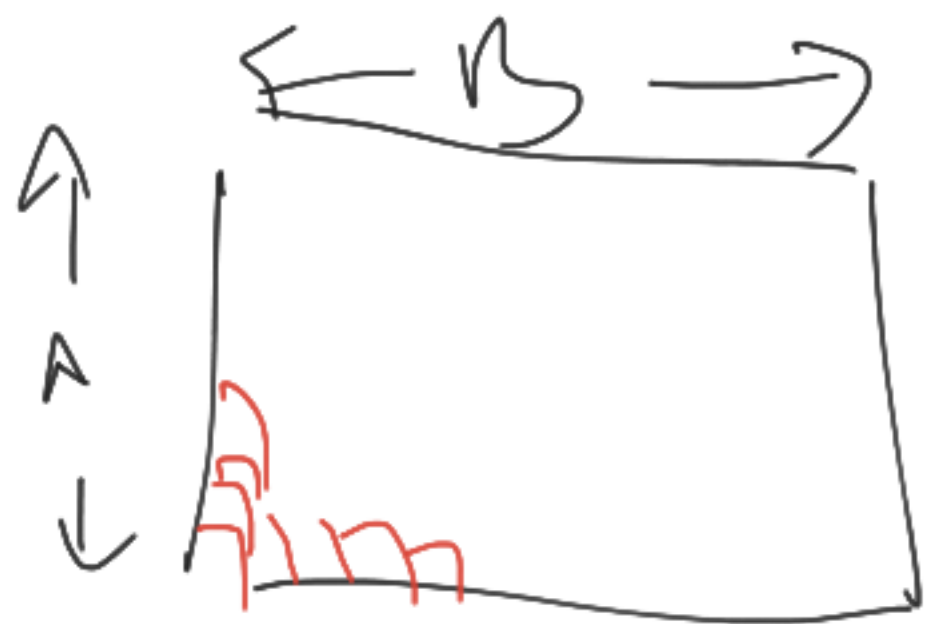




$$N(\epsilon) = \frac{l}{\epsilon} = l \epsilon^{-1} \rightarrow$$

el segmento tiene
dimension 1.



width of the side ϵ

$$N(\epsilon) = \frac{A}{\epsilon} \times \frac{B}{\epsilon} = AB \epsilon^{-2}$$

$N(\epsilon) \sim \epsilon^{-2}$
dimension del
objeto que cubro

Conjuntos de Cantor

$n=1$



$$\epsilon = \frac{1}{3^n}$$

$n=2$



$$N(\epsilon) = 2^n$$

Em geral

$$N(\epsilon) \propto \epsilon^{-d}$$

$$\log N \propto -d \log \epsilon$$

$$\log N(\epsilon) = n \log 2$$

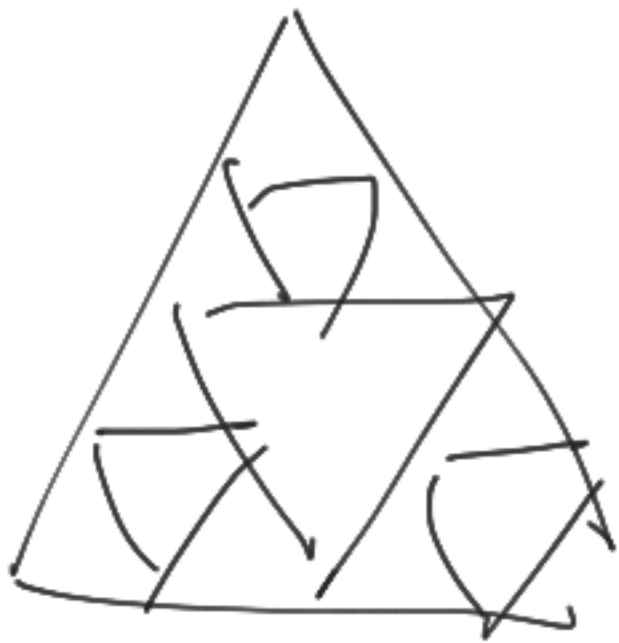
$$\log \epsilon = -n \log 3$$

$$n = \frac{\log N(\epsilon)}{\log 2}$$

$$\log \epsilon = -\frac{\log 3}{\log 2} \log N(\epsilon) \Leftrightarrow \log N(\epsilon) = -\frac{\log 2}{\log 3} \log \epsilon$$

$$N(\epsilon) = \epsilon^{-\left(\frac{\ln 2}{\ln 3}\right)}$$

Dimension of Cantor



$$\frac{\ln 2}{\ln 3} \approx 0.63$$



some dip
how much gap 2)

$$N(\epsilon) \sim \epsilon^{-d}$$