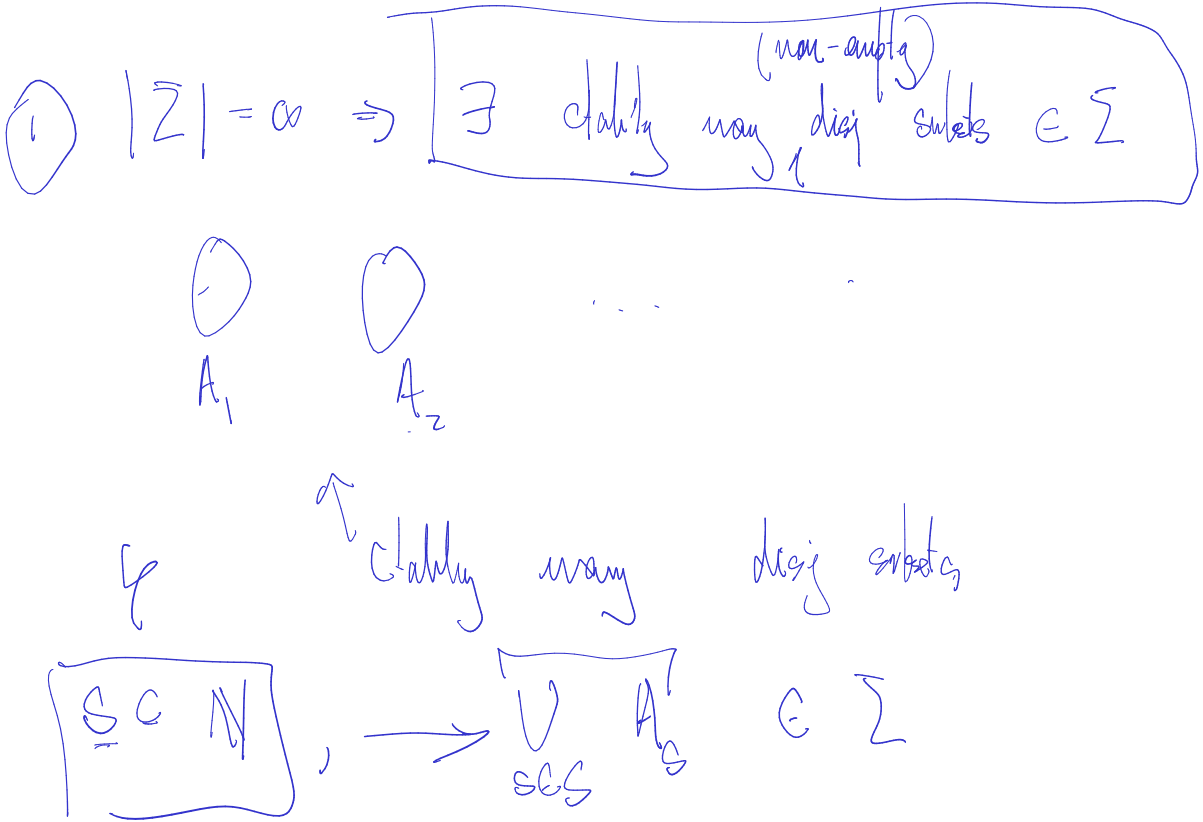
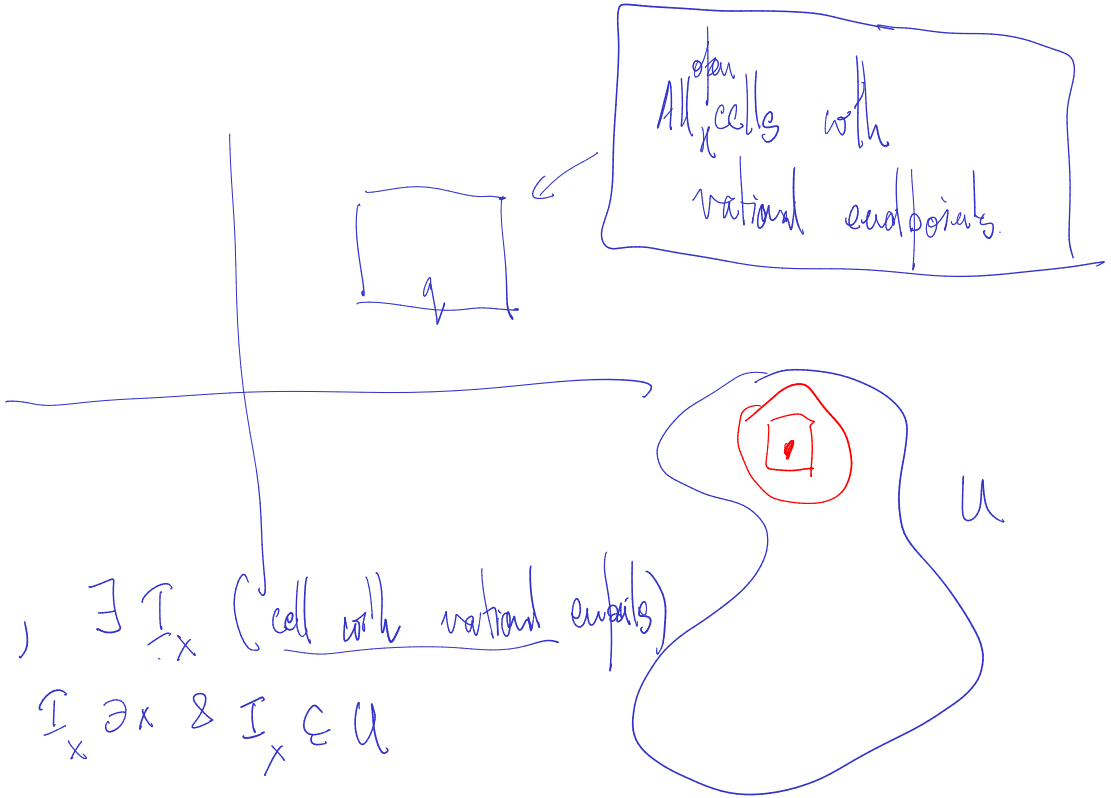

(1) |Σ| = ∞ ⇒ ∃ countably many (non-empty) disjoint subsets ∈ Σ
A1
A2
countably many disjoint subsets
φ
S ⊂ N
∪ A_S
s∈S
∈ Σ

$\mathcal{P}(\mathbb{N})$ uncountable.

$$\Sigma = \{ A_1, A_1^C, A_2, A_2^C, \dots \}$$



$\forall x \in U$, $\exists I_x$ (cell with rational endpts)

$+ \; I_x \ni x \;\&\; I_x \subseteq U$

$\Rightarrow U = \bigcup_{x \in U} I_x$ above.

Claim: If T_1 & T_2 are non overlapping triangles

then $\lambda^*(T_1 \cup T_2) = \lambda^*(T_1) + \lambda^*(T_2)$