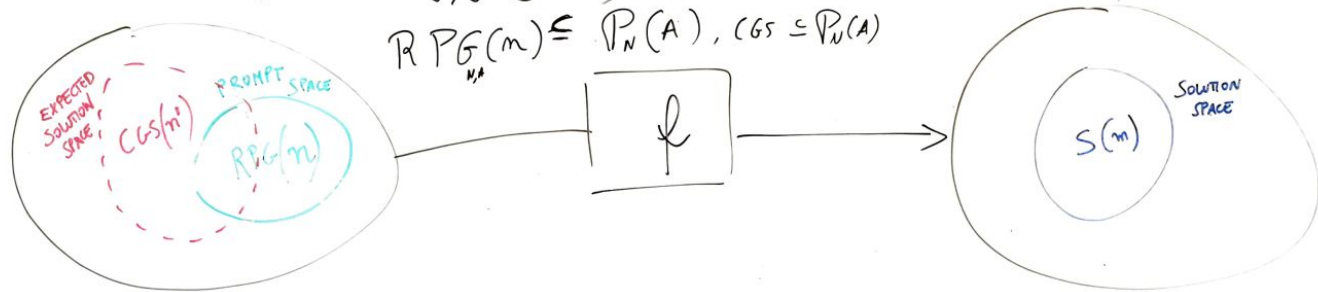
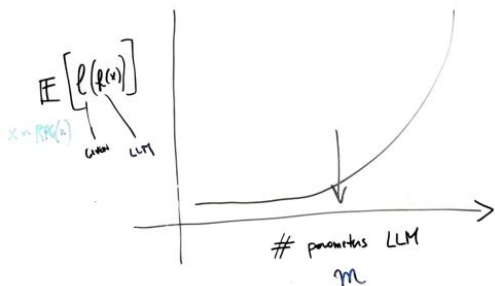


LANGUAGE SPACE $\Phi(n) = \mathcal{P}_N(A)$ $A = \{P_1, \dots, P_m\}$ OUTPUT SPACE
 $RPG(n) \subseteq \mathcal{P}_N(A)$, $GS \subseteq \mathcal{P}_N(A)$



Define $\ell: GS(n) \rightarrow \mathbb{R}$: $\ell(f(x))$ quantifies performance of map f on a problem $x \in RPG(n)$
 e.g. x is a task of a BENCHMARK and ℓ is a metric



For some $m^* \in \mathbb{R}$
 $\mathbb{E}[\ell(f(x))]$ goes to $+$ on $\max \ell(f(x))$
 $x \sim RPG(n)$

m, n are size of a LINEAR BASIS spanning linear spaces $RPG(n)$, $S(m)$



number of neurons in a FULLY-CONNECTED NEURAL NETWORK

$\Phi(n)$ is a KNOWLEDGE GRAPH (CONCEPTNET) so you can quantify amount of information based on number of nodes and associations (links)

LLM: 10^{11} neurons

Oxford dict: 10^5 entries