



**Why**

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**Definition**

Let  $X$  a finite nonempty set. A function  $f : \mathcal{P}(X) \rightarrow \mathbf{R}$  is *submodular* if

$$f(S \cup T) + f(S \cap T) \leq f(S) + f(T)$$

for all  $S, T \subset X$ .

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<sup>1</sup>Future editions will include. The discussion will likely be genetic, through combinatorial optimization.



