

# SUBMODULAR SET FUNCTION

## DIMINISHING RETURNS

- ✦ For all  $A \subseteq B \subseteq S$
- ✦  $x \in S ; x \notin B$
- ✦  $f:2^S \rightarrow R$  is submodular iff

$$f(A \cup \{x\}) - f(A) \geq f(B \cup \{x\}) - f(B)$$