

greedy-set-cover( $S, w$ )

1. Initialize  $C \leftarrow \emptyset$ . Define  $f(C) \doteq |\cup_{s \in C} s|$ .
2. Repeat until  $f(C) = f(S)$ :
3.     Choose  $s \in S$  minimizing the price per element  $w_s / [f(C \cup \{s\}) - f(C)]$ .
4.     Let  $C \leftarrow C \cup \{s\}$ .
5. Return  $C$ .