

Minimize: $K = \sum_{j=1}^m y_j$

Subject to:

$$\sum_{i=1}^n s(i)x_{ij} \leq By_j \quad \forall j = 1, \dots, m$$

$$\sum_{j=1}^m x_{ij} = 1 \quad \forall i = 1, \dots, n$$

$$x_{ij} \in 0, 1 \quad \forall i = 1, \dots, n \quad j = 1, \dots, m$$

$$y_j \in 0, 1 \quad \forall j = 1, \dots, m$$