

$$\text{maximize} \quad z = \sum_{i=1}^m \sum_{j=1}^n p_j x_{ij}$$

$$\text{subject to} \quad \sum_{j=1}^n w_j x_{ij} \leq c_i, \quad i \in M = \{1, \dots, m\}.$$

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

$$x_{ij} = 0 \text{ or } 1, \quad i \in M, j \in N,$$