Weighted Set Cover

Let,

m = number of subsets

n = size of universe

**Bitmask DP:** We can either take a subset or discard it. So complexity .

**Linear Programming:**

Number of variables = m

Number of constraints = n

Simplex method complexity =

**Deterministic Rounding:**

Approximation ratio = f; f = Maximum occurrence of an element in all the subsets.

**Randomized Rounding:**

Approximation Ratio =