Polynomial coefficients

The Problem

The problem is to calculate the coefficients in expansion of polynomial $(x_1+x_2+...+x_k)^n$.

The Input

The input will consist of a set of pairs of lines. The first line of the pair consists of two integers n and k separated with space (0<K,N<13). This integers define the power of the polynomial and the amount of the variables. The second line in each pair consists of k non-negative integers n_1, ..., n_k, where $n_1+...+n_k=n$.

The Output

For each input pair of lines the output line should consist one integer, the coefficient by the monomial $x_1^{n1}x_2^{n2}...x_k^{nk}$ in expansion of the polynomial $(x_1+x_2+...+x_k)^n$.

Sample Input

```
2 2
1 1
2 12
1 0 0 0 0 0 0 0 0 0 1 0
```

Sample Output

```
2
2
```