Problem B. CCC '96 S3 - Pattern Generator

Time limit   2000 ms

Mem limit   262144 kB

Write a program that repeatedly reads two numbers n and k and prints all bit patterns of length n with k ones in descending order (when the bit patterns are considered as binary numbers). You may assume that $0 < n \le 30, 0 \le k < 8$, and $k \le n$. The first number in the input gives the number of pairs n and k. The numbers n and k are separated by a single space. Leading zeroes in a bit pattern should be included. See the example below.

Input	Output
3 2 1 2 0 4 2	The bit patterns are 10 01 The bit patterns are 00 The bit patterns are 1100 1010 1001 0110 0101 0011