

E6 – Pattern Generator

Write a program that 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 $30 \geq n > 0$, $8 > k \geq 0$, and $n \geq k$.

Input:

The input contains the pair of numbers n and k . The numbers n and k are separated by a single space.

Output:

Output all bit patterns of length n with k ones in descending order. Leading zeroes in a bit pattern should be included.

Input and output samples:

Input :	Output :
2 1	10 01

Input :	Output :
2 0	00

Input :	Output :
4 2	1100 1010 1001 0110 0101 0011