## Padded binary representation — X24393_en

Write a **recursive** procedure

```
// n >= 0, the representation of n in binary needs at
// most k bits, i.e., n < 2^k
void write_binary(int n, int k);
```

that writes the binary representation of $n$ with as many 0's to the left as necessary, to have $k$ bits. For instance, `write_binary(4,4)` prints 0100, and `write_binary(3,5)` prints 00011.
Write a program that reads pairs of integers $n$ and $k$, with $0 \leq n < 2^k$, and outputs the binary representation of $n$ with $k$ bits for each pair using the procedure described above.
**Note:** A program accepted by the judge that solves the problem without using a **RECURSIVE** function would be considered invalid and would have a final score 0 in a real exam.
**Note:** Recall that at this point of the course using vectors or any other method to store massive data is not allowed.
**Exam score:** 2.5 **Automatic part:** 100%

### Input

A sequence of pairs $(n, k)$ of positive integers, with $n \leq 2^k - 1$ for each pair. See the examples.

### Output

The binary representation of each $n$, padded with 0s to the left if necessary, to have $k$ bits; print a new line after each binary representation. See the examples.

### Sample input

```
4 3
4 4
4 5
7 5
0 3
1 3
2 3
9 6
```

### Sample output

```
100
0100
00100
00111
000
001
010
001001
```

### Problem information

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Generation : 2015-10-27 14:14:23