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## Zeros and ones (1)

P12828\_en

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Write a backtracking program to print all the combinations of  $z$  zeros and  $o$  ones such that  $z + o = n$ , for a given  $n$ .

### Input

Input consists of a natural number  $n > 0$ .

### Output

Print all the combinations of  $z$  zeros and  $o$  ones such that  $z + o = n$ , one per line and in lexicographical order.

### Observation

Although a backtracking program is not really necessary to solve this exercise, implement it anyway for the sake of practice.

### Sample input

3

### Sample output

```
0 0 0
0 0 1
0 1 0
0 1 1
1 0 0
1 0 1
1 1 0
1 1 1
```

### Problem information

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