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**Simulating recursion (2)****P34441\_en**

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Consider this program (whose inclusions have been removed):

```
void print(int n) {
    if (n > 0) {
        print(n - 1);
        cout << ' ' << n;
        print(n - 1);
    }
}

int main() {
    int n;
    while (cin >> n) {
        print(n);
        cout << endl;
    }
}
```

Take a look at the sample input and sample output to see what this program prints for every given number.

Without modifying the *main()*, reimplement the procedure *print(n)* with no calls at all, recursive or not, so that the output of the program does not change.

**Input**

Input consists of several strictly positive natural numbers.

**Output**

For every number, print a line identical to the one written by the program above.

**Observation**

To solve this exercise, the only containers that you should use are stacks.

**Sample input**

```
1
2
3
4
```

**Sample output**

```
1
1 2 1
1 2 1 3 1 2 1
1 2 1 3 1 2 1 4 1 2 1 3 1 2 1
```

**Problem information**

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Generation : 2025-05-13 11:00:12

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