

# Permutations

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By given `N`, generate all permutations with numbers between `1` and `N`

## Input

- Read from the standard input
- On the single line of the input you will receive the number `N`

## Output

- Print to the standard output
- Print all the permutations of the numbers, sorted alphabetically

## Sample tests

### Input

---

```
3
```

### Output

---

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

### Input

---

```
4
```

### Output

---

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

## Input

---

```
10
```

## Output

---

```
1 2 3 4 5 6 7 8 9 10
....
2 1 3 4 5 6 7 8 9 10
...
10 9 8 7 6 5 4 3 2 1
```