

Today Ilya gave Misha a task: to implement a quicksort algorithm. Misha wrote a solution that passed all the tests, but Ilya suspects that the solution is wrong, and in some cases it works very slowly. Help Ilya build a test that can confirm this.

This problem has no input.

Print in one line an array of at most 2000 positive integers not exceeding 10^9 .

The solution will be considered correct if Misha's program does at least 10^6 when sorting this array element comparisons.

Below are the program equivalents in various languages.

C++:

```
#include <iostream>
#include <vector>

using namespace std;

void qsort(vector<int>& a, int l, int r) {
    if (l >= r) {
        return;
    }

    int x = a[(l + r) / 2];
    int i = l, j = r;

    while (i <= j) {
        while (a[i] < x) {
            ++i;
        }
        while (a[j] > x) {
            --j;
        }
        if (i <= j) {
            swap(a[i], a[j]);
            ++i;
            --j;
        }
    }

    qsort(a, l, j);
    qsort(a, i, r);
}

int main() {
    vector<int> a;
    int i;
    while (cin >> i) {
        a.push_back(i);
    }

    qsort(a, 0, a.size() - 1);

    for (int i : a) {
        cout << i << " ";
    }
    cout << endl;

    return 0;
}
```

Python:

```
def qsort(a, l, r):
    if l >= r:
        return

    x = a[(l + r) // 2]
    i = l
    j = r

    while i <= j:
        while a[i] < x:
            i += 1
        while a[j] > x:
            j -= 1
```

```
        if i <= j:
            a[i], a[j] = a[j], a[i]
            i += 1
            j -= 1

    qsort(a, l, j)
    qsort(a, i, r)

a = list(map(int, input().split()))
qsort(a, 0, len(a) - 1)
print(' '.join(map(str, a)))
```