

```
1 #pragma once
2 #include <stdint.h>
3
4 namespace SoilMath
5 {
6     class Sort
7     {
8     public:
9         Sort();
10        ~Sort();
11
12        template <typename T>
13        static void QuickSort(T *arr, int i)
14        {
15            if (i < 2) return;
16
17            T p = arr[i / 2];
18            T *l = arr;
19            T *r = arr + i - 1;
20            while (l <= r) {
21                if (*l < p) { l++; }
22                else if (*r > p) { r--; }
23                else
24                {
25                    int t = *l;
26                    *l = *r;
27                    *r = t;
28                    l++;
29                    r--;
30                }
31            }
32            Sort::QuickSort<T>(arr, r - arr + 1);
33            Sort::QuickSort<T>(l, arr + i - 1);
34        };
35    };
36
37 }
38 }
```