This program allows you to practice quick sort. You have to do the following:

1. Randomly generate N integer or floating point numbers, where N can be input by command line and also use command line to decide generate integer or floating point numbers.
2. Use the codes provided by the book to sort these N numbers and output the results.
3. Do the same by calling the qsort() function from C libarary. (Independent practice, not included in score)

※NOTE: Please generate random number within 0 ~ 10000. Sort the number in descending order.

Command line

./hw4 (N) (Data type, 0 means integer, 1 means floating point numbers)

Score

recursion  20%
logic  30%
correctness  30%
report  20%

Appendix

The properties of a structure are different from those of an array.

- The elements of a structure (its members) aren’t required to have the same type.
- The members of a structure have names; to select a particular member, we specify its name, not its position.
A declaration of two structure variables that store information about parts in a warehouse:

```c
struct {
    int number;
    char name[NAME_LEN+1];
    int on_hand;
} part1, part2;
```