COMP500 / ENSE501: Week 11 – Exercise:

EXERCISE NAME: *QSort Integers*

Write a program that asks the user how many integers they want to sort, then allows them to input the integer values. Use the heap to store the array of integers.

Once all integers have been input by the user, the program must sort the array using `qsort`.

An example of program's output is as follows:

```
How many? 7

[0]? 30
[1]? 25
[2]? 34
[3]? 18
[4]? 39
[5]? 23
[6]? 41

Sorted:

[0] is 18
[1] is 23
[2] is 25
[3] is 30
[4] is 34
[5] is 39
[6] is 41
```

Another example of program's output is as follows:

```
How many? 4

[0]? 100
[1]? 32
[2]? 549
[3]? 13

Sorted:

[0] is 13
[1] is 32
[2] is 100
[3] is 549
```

Ensure the program output is exactly as described, and that the whitespace of your source code is well formatted.