A set of given positive integers is given.
Arrange these numbers in as few intervals as possible so that *a* and *b* can be in one interval [*a*, *b*] if *a*, *b*, and all natural numbers between *a* and *b* are also in this interval.

Example:
The numbers are 4, 3, 8, 4, 5, 1, 9
The intervals are [1], [3, 5], [8, 9]

Write a C ++ program that reads integers from the keyboard, and
• If the integer is greater than 0, puts it in the set of previously scanned numbers and prints the intervals.
• If the integer is less than 0, take its absolute value. If this was in the set of previously scanned numbers, take it out of there. Prints the intervals.
• If the scanned number is 0, the program exits.

The program must store only the boundaries of intervals.

Sample run:
Enter a number: 4
[4]
Enter a number: 3
[3,4]
Enter a number: 8
[3,4], [8]
Enter a number: 4
[3,4], [8]
Enter a number: 5
[3,5], [8]
Enter a number: 1
[1], [3,5], [8]
Enter a number: 9
[1], [3,5], [8,9]