

Number of different values

Write a program that takes in a list of numbers to see how many different values are in there, and what each value is. E.g., 11,12,13,11,13,13,13,11 have 3 different values, which are 11,12,13

Hint: After reading all the inputs into the list, use **sort** to sort the data in the list from small to large. It will help finding the number of different values easier by reading from left to right once. For the example, **11,12,13,11,13,13,13,11** will become **11,11,11,12,13,13,13,13** after sorting. You can see that the number of different values is equal to the number of different adjacent pairs of numbers plus one.

Input

Sequence of integers

Output

The first line displays how many different values there are.

The second line displays a list of all values that are different (sorted from small to large) for only first 10 values (unless there are less than 10, in which case it displays all of them)

Example

Input (from keyboard)	Output (On screen)
1 2 3 9 4 5 6 7 8 0 10 11 14 12 99 98	16 [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
1 9 1 9 1 9 1 9 1 9 1	2 [1, 9]