Insert

Time limit: 1 sec

Given one sorted list of integers x and another integer y, push y into x such that the resulting list is sorted.

Your Task

Write a function called “insert” in the given code.

Input

- The first line of input contains a sorted list of integers x. The length does not exceed 1000.
- The second line contains one integer y

Output

Output exactly one line containing the merged list

Example

Input	Output
[10,20,30,40] 15	[10,15,20,30,40]
[10,20,30] 0	[0,10,20,30]
[] 10	[10]

Haskell Input

Please use the following starting code. The code reads two lists from the keyboard and call the function merge

```
main :: IO ()
main = do
         x1 <- readLn               -- this is the list
         x2 <- readLn               -- this is the value
         putStrLn (show (merge x1 x2))

merge :: [Int] -> [Int] -> [Int]
-- write your code here
```