

# Merge

*Time limit: 1 sec*

Given two sorted list x1 and x2, write a function that calculate a new list y which contain exactly the member of x1 and x2 in a sorted manner.

## Your Task

Write a function called "merge" in the given code.

## Input

Input has exactly two lines, each line contains a list of sorted integer. The length of each list does not exceed 1000 members

## Output

Output exactly one line containing the merged list

## Example

Input	Output
[1,2,3,4] [10,20,30]	[1,2,3,4,10,20,30]
[10,20,30] [11,12,24]	[10,11,12,20,24,30]
[] []	[]

## 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
    x2 <- readLn
    putStrLn (show (merge x1 x2))

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