

## **FINDING THE SMALLEST INTEGERS**

This problem requires you to find the smallest integer that can be formed from the digits of a  $n$ -digit integer. The input data file, which must be called `smallest.txt` will contain any number of lines of data, with each line consisting of a single  $n$ -digit ( $1 \leq n \leq 5$ ) positive integer starting in the first column.

Your program must read each line of data containing one of these positive integers and produce a corresponding line of output which has on it the smallest integer that can be formed using the digits of the input integer.

The final output will display these new smallest integers, sorted in ascending order.

### **Sample input data (smallest.txt)**

456  
465  
321  
312  
759  
795

### **Sample output**

123  
123  
456  
456  
579  
579

**Judge Data Set 1 - Input**

406

570

301

210

700

**Judge Data Set 1 – Output (20 marks each)**

7

12

13

46

57

**Judge Data Set 2 – Input**

5013

2718

1001

9000

61200

**Judge Data Set 2 – Output (20 marks each)**

9

11

126

135

1278