NUMBER SORTER

Write a program that will sort a set of up to 25 randomly ordered numbers into increasing order. The program will read in via a data file, a set of strings that will be of three types. Type 1 will include fractions of the form M/N where M and N are integers. Type 2 will include integers and Type 3 will include decimal numbers.

You may assume that the numerators and denominators of each fraction will each be positive and each less than 1000 and you may assume that there will be no duplication in any of the numbers to be sorted. (eg. You will not find both 2.5 and 15/6 in the data)

Sample input data (numbers.txt)
3/4,7/8,3.2,8/13,124/125,2,9/8,1/199,1.67,5/3,20/20,4/5,3,2.81,18/8,14/8,.5,0
7/8,4.2,9/8,5/3

Sample Output:
List 1 Sorted
0
1/199
.5
8/13
3/4
4/5
7/8
124/125
20/20
9/8
5/3
1.67
14/8
2
18/8
2.81
3
3.2

List 2 Sorted
7/8
9/8
5/3
4.2

Data Set 1 – Input

3/4,7/8,3.2,8/13,124/125,2,9/8,1/199,1.67,5/3,20/20,4/5,3,2.81,18/8,14/8,.5,0
17/8,4.2,9/9,5/3,3/5,.23,20/2
1/199,1.67,5/3,20/20,4/5,3,2.81,18/8

Data Set 1 -Output (100 marks 30 35 35 each)

List 1 Sorted
0
1/199
.5
8/13
3/4
4/5
7/8
124/125
20/20
9/8
5/3
1.67
14/8
2
18/8
2.81
3
3.2

List 2 Sorted
.23
3/5
9/9
5/3
17/8
4.2
20/2

List 3 Sorted
1/199
4/5
20/20
5/3
1.67
18/8
2.81
3

Data Set 2 – Input

1/199,1.67,5/3,20/20,4/5,3,2.81,18/8
.2,12/5,5/12,888/888,102,1/1,1024/9324
1/2,1/4,1/5,1/6,1/10,.001,3.2,12/12
0,0.1,10.1,3,3/2,302/203

Data Set 2 – Output (100 marks - 20 each output 2 and 6 10 each)

List 1 Sorted
1/199
4/5
20/20
5/3
1.67
18/8
2.81
3

List 2 Sorted
1024/9324
.2
5/12
1/1
888/888
12/5
102

List 3 Sorted
.001
1/10
1/6
1/5
1/4
1/2
12/12
3.2

List 4 Sorted
0
0.1
302/203
3/2
3
10.1