



## F • Extended Normal Order Sort

When sorted in standard order, strings with digits in them may not sort to where they are expected. For instance, **xyz100** precedes **xyz2**. In some applications such as listing files, *normal order sort* may be used where any string of digits in a character string is treated as a single digit with numerical value given by the digit string. For example, the following are in normal order:

**XYZ001, XYZ2, XYZ003, XYZ08, XYZ23, XYZ100, XYZQ**

We wish to extend normal order sort in two ways:

1. Lower case and upper case letters sort the same (with the upper case value).
2. If a plus (+) or minus (-) sign precedes a digit and does not follow a digit, it is considered part of the following number for sorting purposes.

So **123+456+7890** are three numbers separated by plus signs but **A+003** is the same as **A3**.

To do our sort, we will use a library sort routine but we need to furnish a comparison routine. Write a comparison routine which takes as input two strings of printable, non-space *ASCII* characters (`chr(33) - chr(126)`) and returns:

- 1 if the first string should precede the second in extended normal order
- 0 if the two strings are the same in extended normal order, or
- 1 if the first string should follow the second in extended normal order.

### Input

The first line of input contains a single integer **N**, ( $1 \leq N \leq 1000$ ) which is the number of data sets that follow. Each data set consists of a single line of input containing the two strings to be compared separated by a space.

### Output

For each data set, you should generate one line of output with the following values: The data set number as a decimal integer (start counting at one), a space and **-1**, **0** or **1** depending on whether the first string precedes, is the same as, or follows the second string in extended normal order.



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Sample Input	Sample Output
5	1 -1
x-3 X0001	2 1
123-456-7890 123+456+7890	3 0
xYz000123J XyZ+123j	4 -1
#\$%^&*[]- abcdefgh	5 0
Abc47jKL+00123 ABC+47jKL123	