

Problem X

XTRA XTRA

File name: `X.{java,c,cpp}`

Gretel is an enthusiastic young journalism student who just got a summer internship at the local newspaper. However, her excitement was subdued slightly when she was presented with the mundane task of fixing the article of another reporter: Hansel.



Hansel's writing is flawless except for one part: he's technologically inept so he kept the caps-lock key on when he was typing, so the cases in his text are inverted (i.e. letters that should be uppercase are now lowercase and vice versa).

Give Gretel a hand. Write a program for which, given Hansel's text, which is comprised only of alphabetic letters 'a'-'z' in both uppercase and lowercase as well as spaces, return the text with cases inverted.

Program Input

You are given n ($1 \leq n \leq 10$) on the first line, and n lines will follow. On each line, you will be given a string that is no more than 100 characters consisting of spaces, letters 'a'-'z' and 'A'-'Z'.

Program Output

For each line, output the same line with cases inverted (spaces are preserved).

Sample Input & Output

INPUT	OUTPUT
2 eXTRA eXTRA rEAD aLL aBOUT iT cAPS LOCK rEAL pROBLEM rESEARCh SUGGESTS	Extra Extra Read All About It Caps Lock Real Problem Research Suggests