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| **Problem X** | **Simulation Task** |

To develop the coding skill, Mr. X gave his students a task to solve the following string manipulation problem.

A string conversion steps are as follows:

**step 1:**

* If a word starts with “x”, replace the “x” with “z”
* Change all remaining “x”s to “ks”s

**Step 2:**

* Change all “y”s to “i”s

**Step 3:**

* If a “c” is directly followed by an “e” or “i”, change the “c” to an “s”.

**Step 4:**

* If a “c” is directly followed by a “k”, remove the “c”. Keep applying this rule as necessary (Example: “cck” becomes “k”)

**Step 5:**

* If a word starts with “sch”, change the “sch” to a “sk”
* If a “ch” is directly followed by an “r”, change the “ch” to a “k”
* After applying the above rules, change all “c”s that are not directly followed by an “h”, to a “k”. ( This includes all “c”s that are the last letter of a word.)

**Step 6:**

* If a word starts with “kn” change the “kn” to an “n”

**Step 7:**

* Change all double consonants of the same letter to a single consonant. A consonant is any letter that is not one of “a,e,i,o,u.” (Example: “apple” becomes “aple”). Keep applying this rule as necessary (Example: “zzz” becomes “z”)

So, as input you are given a string and step number. You have to perform the conversion, step by step beginning from step 1 and output the result after specific step number.

**Input:**

In first line T ( <=1000) number of test cases. Then each test case contains a single line L (0 <length(L)<1000) and a number S (0<=S<=7) denoting step number.

**Output:**

Print converted string after S step.

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| Sample Input | Sample Output |
| 3  i fixed the chrome xerox by the cyclical church  1  cck xzz aaaaa  7  hi all  0 | Case #1: i fiksed the chrome zeroks by the cyclical church  Case #2: k z aaaaa  Case #3: hi all |