

(5 points)

(G) Rewrite me badd

You speak a little differently than your parents do. They probably say that you're speaking "bad English". Every generation of parents says this, but this is just how language works. In fact, this is where languages come from: enough generations of young people speaking "bad Latin" and eventually you have Spanish, French, and Italian!

Huishu is a language in the Tangkhulic family and is spoken in the easternmost part of India. Over time, enough changes occurred in this one village that the villagers now speak a different language than any of their neighboring villages. So where they used to say "-lo" ("buy"), they now say "-lu", and where they used to say "-muk" ("cattle") they now say "-mu?". (That symbol at the end represents the sound in the middle of "Uh-oh!", and the dashes in front just mean that these have to occur as parts of larger words.)

Linguists model historical sound changes as "string-rewrite rules". These are very much like a "find-and-replace" procedure in a word processor: look for one character or pattern and replace it with another one. As the old language changed into modern Huishu, the following string-rewrite rules applied:

K-Insertion: When you find an [u] at the end of the word, add a [k] after it.

Vowel-Raising: When you find an [o] at the end of the word, replace it with [u].

K-Deletion: When you find a [k] at the end of a word, replace it with [?].

These changes didn't all just happen at once, though. They happened one after another – although not necessarily in the order above! – and we can see in which order they happened by comparing the old forms to the new forms. Only one order will work; if these changes had happened in any other order, we would have different modern words.

Here are a few such pairs (the old form is at the top; the new one is at the bottom). From these, can you determine the order in which the above changes must have occurred? Write the names of the rules in the blanks on the left. The blanks in between each pair are for your benefit: if you write how each word changed as each rule applied, you should be able to work out their ordering in time.

Proto-Tangkhulic form:	-ru ("bone")	-khuk ("knee")	-ko ("nine")
Rule 1: _____			
Intermediate form 1: _____	_____	_____	_____
Rule 2: _____			
Intermediate form 2: _____	_____	_____	_____
Rule 3: _____			
Huishu form:	-ruk	-khu?	-ku

