

Word chains

A *word chain* is a sequence of words without repetition where each word differs from the preceding one by exactly one letter. For instance:

cap cat cut cup

but not

cap cup cap cup.

and certainly not

cat eel dog

Task

Write a program that takes a list of words as input (one per line, all in lower case, characters from 'a' to 'z' only) from stdin and takes two words and a chain length as command line arguments, and produces a chain of that length linking the words if one exists. For instance:

```
wordChain cap cup 4 < threeLetterWords.txt
```

might produce

```
cap cat cut cup
```

(if those words occurred in the input) while

```
wordChain cat dog 3 < anyFile.txt
```

would produce

```
cat dog 3 not possible
```

(since all three letters need to be changed and so the minimum possible chain length is four).

If the length parameter is omitted then the shortest possible chain should be produced (or a not possible message issued):

```
wordChain cap cup < threeLetterWords.txt
```

would produce

```
cap cup
```

(1 point, Pair)