

(G) By the Same Token (1/3) [10 points]

While sifting through some old papers in a computer science department, you come across a table of words and numbers. At first glance, it seemed as if these numbers were behaving completely...*unpredictably*. Here is what the table looked like:

| Word | Types | Tokens |
|--------------------|-------|--------|
| rock | 4 | 4 |
| paper | 4 | 5 |
| scissors | 5 | 8 |
| shoot | 4 | 5 |
| shaping | 7 | 7 |
| add | 2 | 3 |
| senselessness | 4 | 13 |
| metal | 5 | 5 |
| assesses | 3 | 8 |
| hemidemisemiquaver | (a) | (b) |
| squeegee | (c) | (d) |
| (e) | (f) | 1 |
| (g) | 3 | 3 |
| (h) | 8 | 8 |
| (i) | 2 | 4 |
| (j) | 4 | 7 |
| (k) | 13 | 13 |

G1. Fill in possible values for the missing cells. For (e), (g), (h), (i), (j), and (k), you will receive more points for answers that are real English words than for ones that are not.

a.

b.

c.

d.

e.

f.

g.

h.

i.

j.

k.



(G) By the Same Token (2/3)

G2. You find one more mysterious table amongst the papers. This table shows some words in Shilha, a Berber language spoken in Morocco that is also known as Tasusiyt, along with information about their types, tokens, and English translations:

| Shilha word [CORRUPTED] | Types in the correct Shilha word | Tokens in the correct Shilha word | English translation |
|----------------------------|----------------------------------|-----------------------------------|----------------------------------|
| LSFAFUALUSA | 5 | 6 | male chicken |
| ZPSIAFLULRUQSNTFS | 6 | 7 | male chickens |
| QZPTLSALFUALRUSTFS | 6 | 8 | female chicken |
| QZPSTAILFLUSLQRUSINTFS | 7 | 9 | female chickens |
| AAAATTBBBBIRRRRRR | 5 | 5 | male pigeon |
| IIITBIIRINII | 5 | 6 | male pigeons |
| TATBIRT | 5 | 7 | female pigeon |
| IITITBIRINI | 5 | 8 | female pigeons |
| AMFGUQNARS | 5 | 6 | ox (male bovine) |
| IFUNASN | 6 | 7 | oxen (male bovines) |
| ZSPTACFHUXNAVSTLQF | 6 | 8 | cow (female bovine) |
| TIFUNASIN | 7 | 9 | cows (female bovines) |
| ASHLHIY | 6 | 7 | male speaker of Shilha |
| ISHLATRHIYN | 6 | 8 | male speakers of Shilha |
| TASHLHIYT | 7 | 9 | female speaker of Shilha |
| TISHLHIYIN | 7 | 10 | female speakers of Shilha |
| QPZFIATPNDTNRTLNRTRTNR | 3 | 5 | mountain (masculine) |
| QZPIBXDZWRPLANTSRLYXNFS | 5 | 6 | mountains (masculine) |
| QPZNTIIAIPNDNILRANRNITNFS | 4 | 7 | mountain (feminine) ¹ |
| QPZTFMITPDNMRLTANFRSHILYNV | 6 | 8 | mountains (feminine) |

However, the file has been corrupted so that there are a bunch of extra letters in the “Shilha Word” column (the other three columns are still accurate). Your task is to remove the extra letters to return the Shilha words to their correct state. Note that, in order to achieve the correct Shilha words, you do not need to rearrange any letters. Instead, you just have to delete zero or more letters from each line, and if you choose the correct letters to delete, the letters that are left over will be in the correct order to spell the correct Shilha words.

¹ The word defined here as “mountain (feminine)” would typically be used to mean “small mountain” rather than “female mountain,” but for consistency we have used the definition “mountain (feminine).”



(G) By the Same Token (3/3)

Once you have figured it out, write the Shilha translations of the following English phrases on your answer sheet:

(l) female pigeon

(m) male pigeon

(n) cow (female bovine)

(o) mountain (masculine)

(p) mountains (feminine)

| | | | | | | | | | | | | | | | | | | | | | | |
|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| l. | | | | | | | | | | | | | | | | | | | | | | |
| m. | | | | | | | | | | | | | | | | | | | | | | |
| n. | | | | | | | | | | | | | | | | | | | | | | |
| o. | | | | | | | | | | | | | | | | | | | | | | |
| p. | | | | | | | | | | | | | | | | | | | | | | |

