

PROBLEM BOOK IN PHONOLOGY:

**A Workbook for Introductory Courses
in Linguistics and in Modern Phonology**

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Tibetan Numerals

The following forms illustrate a process of word formation in modern Tibetan (Lhasa dialect). In the transcriptions, the difference between sh and sh, g and g may be ignored.

Note. The items *jugjig* and *juŋa* are actually pronounced [jugjɨ] and [jö:ŋa]. We shall assume that these pronunciations are due to further, independent phonological processes not of concern here. They may be ignored for the purposes of the present problem.

UR:

1. ju	'ten'
2. jig	'one'
3. jugjig	'eleven'
4. <u>shi</u>	'four'
5. jubshi	'fourteen'
6. <u>shibju</u>	'forty'
7. <u>gu</u>	'nine'
8. jurgu	'nineteen'
9. <u>gubju</u>	'ninety'
10. ŋa	'five'
11. juŋa	'fifteen'
12. ŋabju	'fifty'

1. List the morphemes associated with each of the following meanings. Give all alternants.

'ten'

'one'

'four'

'nine'

'five'

2. What is the order of morphemes in the Tibetan numeral?

teens (11, 14, 15, 19):

tens (40, 50, 90):

3. The simplest way of describing these forms is to set up an underlying representation (UR) for each word consisting of the base form of each of its morphemes. All forms can be derived from this UR by a regular phonological change. Note that the UR need not be identical to any actually appearing word. Determine the UR of each of the words listed above and write it in the space provided. What is the phonological change?