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LO

MALTA

Linguistics Olympiad

The Problem Solvers' Challenge

**SOLUTIONS TO
PRACTICE SESSION 1
PUZZLES**

Puzzles

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|------------------------------|-------------------|
| 1. Where in the world? | Harold Somers |
| 2. Beja beasts | Dick Hudson |
| 3. People, animals and stuff | Babette Verhoeven |
| 4. Learning Dima | Daniel Lovsted |
| 5. Sauk it up | Ryan Chi |

Puzzle 1: Where in the world?

(20 points)

1	2	3	4	5	6	7	8	9	10	11	12	13
A	Y	U	G	F	W	Q	C	L	P	V	O	N
14	15	16	17	18	19	20	21	22	23	24	25	
S	J	X	T	K	M	D	E	H	R	B	I	

The matching-up part of the problem is complicated by the fact that the names are not directly transliterated. Nevertheless, the usual strategy of starting with the longest name is a good one. But also there are clues in the blurb: the map is of Tamazgha, so that is probably the word in the black square. Also, five countries with their relative locations are named: Libya, Tunisia, Algeria (though see below), Morocco and Mali, and can be found on the map, remembering that it is 'upside down'; and the compass rose shows the initial letter of the word for 'north', *sh*. So the map gives about half the letters. Some of the names are somewhat different, and Rabat (Arbat) and Safi (Asfi) could cause a little confusion, as could the fact that there are three different letters transliterated as 'T'; but the "really quite different case" is Algiers (Dzhayt) capital of Algeria (Dzhayr).

2. Iel Agrakal

3. Idurar n Watlas/Uatlas/Oatlas/Ouatlas

The transliteration of the letter is not clear from the names in which it occurs (Oran, Oujda, Nouakchott, Siwa), so all four answers are acceptable.

4. Idurar n Ahaggar

This is tricky because the letter does not appear elsewhere in the data. Given the English name for the mountain range, H is the most obvious transliteration.

5. Europe, Africa

They call them Urup and Taferka but we asked what do we call it.

Puzzle 2: Beja beasts

(15 points)

- The man sees a camel.
 - He pulls your camel.
 - A donkey goes.
 - One of your men eats.
 - The man who pulls you sleeps.
 - One of your men sees the camel which pulls you
- tak giigiini
 - uukaam oomeek rihiini
 - uumeek diwiini
 - utak itamiini ookaam rihiini

- (e) meekook tamiini
- (f) uumeek itamiini ookaam ibitiiniook rihini

Explanation

- Word order: Subject – Object – Verb
 - The only verb form seen involves adding *-iini* to the stem
 - If there is no subject, translate as 'he Vs'
- Definiteness 'the' :
 - *uu-* prefix if subject
 - *oo-* prefix if object
 - no prefix means indefinite 'a'
- 'your'
 - *-uuk* suffix if subject
 - *-ook* suffix if object
 - Add *i-* prefix if definite 'your N'
 - Indefinite translated as 'one of your Ns'
 - Notice that indefinite nouns are not marked as subject or object
- Case: The above rules can be conflated if you note that
 - nominative/subject: *uu* in prefix or suffix
 - accusative/object: *oo* in prefix or suffix
- Relative clauses: To make S (O) V into a relative clause modifying N:
 - attach the *i-* prefix to the verb
 - If the object is 'you', attach the appropriate 'your' suffix to the verb:

Select *-uuk* or *-ook* according to the case of the noun to which the relative clause attaches

Puzzle 3: People, animals and stuff (25 points)

1.

1	2	3	4	5	6	7
g	e	f	b	c	d	a

- 2. (a) tibirinya
- (b) irahunyu furesetinyu
- (c) sunganyen irufuntiha
- (d) huru harutinyu
- (e) baruru bimetiha
- (f) uruwa wugurinya gagubutinya
- (g) tsafuru hinyaru

EXPLANATION

Prefixes are *n-* 'my', *t-* 'her', and *sun* 'all

Suffixes are *ha* 'those', and *-nya* or *-nyu* for plural

Word order: adjectives follow the nouns; in genitive phrases the possessed item is followed by the possessor.

In the data shown, choice of plural marker depends on the last letter of the noun (though actually this isn't a general rule for Garifuna): nouns ending in *-i* form the plural with *-nya* all others *-nyu*.

However, not all nouns and adjectives show plural. There are three classes of nouns:

Class I (human): both noun and adjective shows plural, with the adjective taking the same plural marker as the noun (irrespective of its own last letter)

Class II (animate non-human): nouns do not show plural but adjectives do, again agreeing with the noun (although in all cases requested, that's *-nyu*)

Class III (inanimate): neither noun nor adjective shows plural. Without a numeral, or prefix 'all' or suffix 'those', singular and plural would be indistinguishable, eg *wewe gagubuti* 'tall tree(s)'

Puzzle 4: Learning Dima

(20 points)

1. The tall women carried a strong crocodile

2.

I	II	III	IV	V	VI
B	A	D	C	A	A

3. I. I loved a black eagle

II. Tall girls carried the selfish chief quickly

III. A man saw the strong oxen

IV. The girl killed the black crocodile

V. The small man saw them

VI. They cooked an eagle slowly

Dima has SOV word order. (In reality, there is some freedom in word order in Dima, but SOV is predominant.)

Noun phrases have Adjective-Noun order. (In reality, Noun-Adjective order is just as common, but for simplicity order was kept consistent.)

Verbs agree with their subject: *-t* for 1st person, *-n* for 3rd person subject.

Adjectives are marked with suffixes, in the following order, for number/gender (*ub* masculine singular, *ind* feminine singular, *id* plural), definiteness (*is*), and objecthood (*im*). Indefinite and subject are unmarked. Plurality is also marked on nouns (*af*). When there is no adjective, nouns also show definiteness and objecthood with the same endings.

Gender/number		Definiteness		Case	
masc sing	<i>ub</i>	indefinite		subject	
fem sing	<i>ind</i>	definite	<i>is</i>	object	<i>im</i>
plur	<i>af</i> (N) <i>id</i> (A)				

The pronouns seen are 'I' (subject) *ate*, 'they' (subject) *kete*, 'them' (object) *kenim*

Puzzle 5: Sauk it up

(25 points)

1.

1	2	3	4	5	6	7	8	9
R	C	N	H	Q	F	J	D	A
10	11	12	13	14	15	16	17	18
K	M	G	I	P	B	O	E	L

2. (a) little horse, pony, foal, colt ... (b) to wash, to launder, to clean..

3. (a) winetepi (b) mahkathehanikaneki.....

Explanation

achimo-	tell
anemoha	dog
chitapi	sit
kaneki	place
mahkathehani	shoes
Mehiko	Mexico
meshi	big
methenahikani	paper
pínahika-	clean/wash
piwapehkwi	metal
teneki	town
tetepithoni	wheel
toskasha/I	horse
winetepi	brain
witheni/-weni	food

- he- (before last syllable) little
- ni noun form of verb
- wa 'to (Verb)'