

Eighth International Olympiad in Linguistics

Stockholm (Sweden), 19–24 July 2010

Individual Contest Solutions

Problem #1. Rules:

- form 1: **-mV-** after the first vowel, whereby **V** depends on the vowel in the following syllable (**a** before **a**, **o** before **o** or **u**, **e** before **i**, **ö** before **ü**);
- form 2:
 - **-a**, if the stem ends in **-aR** or **-oR**,
 - **-Ra**, if the stem ends in **-i**, **-u** or **-ü**,

where **R** is **l** or **n** if one of these consonants is found in the root, or **r** otherwise;

- form 3: form 2 with **-r-** after the first vowel, unless **R** follows immediately.

Answers:

form 1	form 2	form 3
<i>ḥamerki</i>	<i>ḥarkira</i>	
<i>jömölkü</i>	<i>jölküla</i>	<i>jölküla</i>
<i>qamalqal</i>	<i>qalqala</i>	
<i>qumoroopu</i>	<i>quroopura</i>	<i>quroopura</i>
<i>somonḥon</i>	<i>sonḥona</i>	<i>sonḥona</i>

form 1	form 2	form 3
<i>amolqol</i>	<i>alqola</i>	<i>alqola</i>
<i>emensi</i>	<i>ensina</i>	
<i>ḥömörçü</i>	<i>ḥörçüra</i>	
<i>čumaraqar</i>		<i>čuraqara</i>
<i>ḥamoloqu</i>		<i>ḥaloqula</i>
<i>imankan</i>		<i>inkana</i>
<i>jemeçi</i>		<i>jerçira</i>

Problem #2.

- 1–4: *caa* 1, *lue* 2, *köni* 3, *eke* 4;
 - 5, 10, 15: $\beta\text{-pi} = 5\beta$ ($1 \leq \beta \leq 3$);
 - 6–9, 11–14, 16–19: $\alpha\text{-ngömen} = 5 + \alpha$, $\alpha\text{-ko} = 10 + \alpha$, $\text{-e-ko} > \text{-ako}$
 $\alpha\text{-qaihana} = 15 + \alpha$ ($1 \leq \alpha \leq 4$);
 - 20, 40, 60, 80: $\gamma\text{-atr} = 20\gamma$ ($1 \leq \gamma$); $\text{caa-atr} > \text{caatr}$, $\text{eke-atr} > \text{ekaatr}$
 - 21–39, 41–59, ...: $\Gamma \text{ nge } \Delta = \Gamma + \Delta$ ($\Gamma = 20\gamma, 1 \leq \Delta \leq 19$).
- (a) *caatr nge caako*: **31**, *caatr nge caangömen*: **26**, *caatr nge caaqaihana*: **36**, *ekaatr nge ekengömen*: **89**, *köniatr nge köniko*: **73**, *köniatr nge könipi*: **75**, *köniatr nge köniqaihana*: **78**, *lueatr nge lue*: **42**, *lueatr nge luako*: **52**, *lueatr nge luepi*: **50**.
- (b) *köniatr nge eke*: **64** + *caatr nge luepi*: **30** = *ekaatr nge ekako*: **94**
luengömen: **7** + *luako*: **12** = *ekeqaihana*: **19**
- (c) 21: *caatr nge caa*, 48: *lueatr nge köningömen*, 83: *ekaatr nge köni*.