

# Seventh International Olympiad in Theoretical, Mathematical and Applied Linguistics

Wrocław (Poland), 26–31 July 2009

Individual Contest Solutions

**Problem #1.** Here are the words from which the Sulka language constructs its numerals:

- *tgiang* 1, *lomin* 2, *korlotge* 3, *korlolo* 4, *ktiēk* 5, *mhelom* 20;
- *hori orom* addition, *lo* doubling;
- *a* singular, *o* plural (from 3 on).

Nouns have different forms for the two numbers (*tu*, *sngu*; *vhoi*, *vuo*). There are separate words for a foursome of coconuts, for a twosome and foursome of breadfruit (*ngausmia*, *moulang*, *ngaitegaap*).

Answers:

- (a) • *a ksie a tgiang*: 1 coconut  
• *o ngaitegaap a korlotge*: 12 breadfruits  
• *o ngausmia a ktiēk*: 20 coconuts  
• *o vuo a lo ktiēk hori orom a tgiang*: 11 betel nuts
- (b) • 2 yams: *a lo tu a lomin*  
• 14 yams: *o sngu a lo ktiēk hori orom a korlolo*  
• 15 breadfruits: *o ngaitegaap a korlotge hori orom a moulang hori orom a tgiang*  
• 20 betel nuts: *o vuo a mhelom*

**Problem #2.** The N’Ko script is written and read from right to left. The script is an alphabet: each letter stands for a consonant or a vowel. The letters within a word are joined.

- (a) A tilde above a vowel letter means low tone, its absence means high tone. But a vowel has middle tone if it is marked in the same way as the one before it (if both either have or lack tildes).

ብልકòró — bìlákòró

ታጀጀላ — tájula

કòrikóri — kòrikóri

ባውò — báwò

- (b) If two adjacent syllables have the same vowel and both letters should have a tilde or neither should have one according to the rules, only the second vowel is written.

કጀጀል — kìlìl

ታጀጀና — támene

ውጀጀሎሎ — wólowlolo

ለተሪ — létére

ቢላકòሮ — bìlákòró

ጃማኙኩ — jàmanaké