

# Seventh International Olympiad in Theoretical, Mathematical and Applied Linguistics

Wrocław (Poland), 26–31 July 2009

Individual Contest Problems

## Rules for writing out the solutions

1. Do not copy the statements of the problems. Write down your solution to each problem on a separate sheet or sheets. On each sheet indicate the number of the problem, the number of your seat and your surname. Otherwise your work may be mislaid or misattributed.
2. Your answers must be well-argumented. Even a perfectly correct answer will be given a low score unless accompanied by an explanation.

**Problem #1 (20 points).** The following are phrases in English and their translations into the Sulka language:

1 betel nut	<i>a vhoi a tgiang</i>
1 yam	<i>a tu a tgiang</i>
2 betel nuts	<i>a lo vhoi a lomin</i>
2 coconuts	<i>a lo ksie a lomin</i>
3 betel nuts	<i>o vuo a korlotge</i>
3 breadfruits	<i>a moulang hori orom a tgiang</i>
4 yams	<i>o sngu a korlolo</i>
6 yams	<i>o sngu a ktiék hori orom a tgiang</i>
7 betel nuts	<i>o vuo a ktiék hori orom a lomin</i>
10 breadfruits	<i>a lo ngaitegaap hori orom a moulang</i>
10 coconuts	<i>a lo ngausmia hori orom a lomin</i>
10 yams	<i>o sngu a lo ktiék</i>
15 coconuts	<i>o ngausmia a korlotge hori orom a korlotge</i>
16 coconuts	<i>o ngausmia a korlolo</i>
18 breadfruits	<i>o ngaitegaap a korlolo hori orom a moulang</i>
18 yams	<i>o sngu a lo ktiék hori orom a ktiék hori orom a korlotge</i>
19 betel nuts	<i>o vuo a lo ktiék hori orom a ktiék hori orom a korlolo</i>
20 yams	<i>o sngu a mhelom</i>

(a) Translate into English:

*a ksie a tgiang*  
*o ngaitegaap a korlotge*  
*o ngausmia a ktiék*  
*o vuo a lo ktiék hori orom a tgiang*

(b) Translate into Sulka:

2 yams  
14 yams  
15 breadfruits  
20 betel nuts

⚠ Sulka belongs to the East Papuan language family. It is spoken by approx. 3500 people in East New Britain Province in Papua New Guinea.

Betel nuts are actually seeds of a certain kind of palm. Yam is the edible tuber of the tropical plant of the same name.

—Evgenia Korovina, Ivan Derzhanski