Twelfth International Olympiad in Linguistics
Beijing (China), July 21–25, 2014
Individual Contest Problems

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.
Your answers must be well-supported by argument. Even a perfectly correct answer will be given a low score unless accompanied by an explanation.

Problem #1 (20 points). Here are some verb forms of Benabena and their English translations:

nohobe  I am striking him
kahalune  we will strike you_{sg}
nokoho’ibe  we both are striking you_{sg}
nolenufu’inagihe  because we both are piercing you_{pl}
nolifi’ibe  you both are piercing us
nofunagihe  because I am piercing him
nofine  you_{sg} are piercing him
nifila’ibe  you both will pierce me
nonahatagihe  because you_{sg} are striking me
lenahalube  I will strike you_{pl}
nahalanagihe  because you_{pl} will strike me
lahala’ibe  you both will strike us
nofutagihe  because we are piercing him
lefinifiu’ibe  we both will pierce you_{pl}
noho’inagihe  because we both are striking him

(a) Translate into English:

nonifibe, halu’ibe, lifilatagihe, nokufune, nokahanagihe.

(b) Translate into Benabena:

• you both are striking him;
• we will pierce you_{sg};
• because we are striking you_{pl};
• because you_{pl} will pierce him.

⚠️ The Benabena language belongs to the Trans-New Guinea family. It is spoken by approx. 45,000 people in Papua New Guinea.

—Ivan Derzhanski
**Problem #2 (20 points).** Here are the singular, dual and plural forms of some Kiowa nouns and their English translations. Not all forms are given, although all exist.

<table>
<thead>
<tr>
<th>singular</th>
<th>dual</th>
<th>plural</th>
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<tbody>
<tr>
<td>adč</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>matʰonsjan</td>
<td>matʰonsjan</td>
<td>matʰonsjadc</td>
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<tr>
<td>k’č</td>
<td>k’č</td>
<td>k’čgō</td>
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<td>thot’olaga</td>
<td>thot’ola</td>
<td>thot’olaga</td>
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<td>aufi</td>
<td>aufigō</td>
<td>fish</td>
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<td>phjaboadač</td>
<td>phjaboada</td>
<td>street lamp</td>
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<tr>
<td>matʰun</td>
<td>matʰun</td>
<td>girl</td>
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<tr>
<td>k’onbohodon’oč</td>
<td>k’onbohodon’o</td>
<td>hat</td>
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<td>t’č</td>
<td>t’čgō</td>
<td>spoon</td>
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<td>e</td>
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<td>bread</td>
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<td>alsaḥjegō</td>
<td>alsaḥjegō</td>
<td>plum</td>
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<td>?</td>
<td>tsegun</td>
<td>tsegudač</td>
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<td>?</td>
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<tr>
<td>?</td>
<td>k’apʰth’oč</td>
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<td>k’adō</td>
<td>tomato</td>
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<td>?</td>
<td>sadč</td>
<td>child</td>
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<td>?</td>
<td>pitso</td>
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<td>?</td>
<td>th’apʰpaα</td>
<td>?</td>
</tr>
</tbody>
</table>

Fill in the cells with question marks.

△ The Kiowa language belongs to the Kiowa-Tanoan family. It is an endangered language, only spoken by a few hundred people in Oklahoma, USA.

The Kiowa words are given in a simplified transcription. k’, t’, p’, kʰ, pʰ, tʰ are consonants; ő is a vowel.

—Aleksejs Peguševs
Problem #3 (20 points). Once upon a time in the Tangut Empire ("the Great State of the White and the Lofty") there lived two brothers and two sisters. They each had a son and a daughter.

![Family tree]

Below you see statements in the Tangut language concerning the relations between these people. The name Lhie²nyn² belongs to a man.

1. Ldiu²še¹ Nie²tse¹ 'yn¹ kâj¹ ngu².
2. Lhie²nyn² Ngwi¹nby² 'yn¹ lîò¹ ngu².
3. Sei¹na¹ Wa²nie¹ 'yn¹ ndøn¹ ngu².
4. Ldiu²še¹ Šan¹nia¹ 'yn¹ ngu².
5. Šan¹nia¹ Syn¹mei¹ 'yn¹ ŏwej¹ ngu².
6. Ldiu²še¹ Syn¹mei¹ 'yn¹ ŏwej¹ ngu².
7. Ldiu²še¹ Wa²nie¹ 'yn¹ ŏwej¹ ngu².
8. Kei¹ţez² Ldiu²še¹ 'yn¹ ŏwej¹ ngu².
9. Ldiu²še¹ Kei¹ţez² 'yn¹ ŏwej¹ ngu².
10. Lhie²nyn² Syn¹mei¹ 'yn¹ wîa¹ ngu².
11. Lhie²nyn² Siè¹tse¹ 'yn¹ 'io¹ ngu².
12. Kei¹ţez² Wa²nie¹ 'yn¹ lîò¹ ngu².
13. Kei¹ţez² Siè¹tse¹ 'yn¹ ŏwej¹ ngu².
14. Lhie²nyn² Kei¹ţez² 'yn¹ ŏwej¹ ngu².
15. Syn¹mei¹ Nie²tse¹ 'yn¹ ŏwej¹ ngu².
16. Ngon²ngwe¹ Mbe²phon¹ 'yn¹ kâj¹ ngu².
17. Syn¹mei¹ Sei¹na¹ 'yn¹ kâj¹ ngu².
18. Ldiu²še¹ Siè¹tse¹ 'yn¹ ndøn¹ ngu².
19. Lhie²nyn² Wa²nie¹ 'yn¹ wîa¹ ngu².
20. Ldiu²še¹ Sei¹na¹ 'yn¹ ŏwej¹ ngu².
21. Wa²nie¹ Sei¹na¹ 'yn¹ mu¹ ngu².
22. Šan¹nia¹ Wa²nie¹ 'yn¹ ŏwej¹ ngu².
23. Ngon²ngwe¹ Ldiu²še¹ 'yn¹ la² ngu².
24. Lhie²nyn² Mbe²phon¹ 'yn¹ mu¹ ngu².
25. Mbe²phon¹ Ldiu²še¹ 'yn¹ ma¹ ngu².
26. Lhie²nyn² Nie²tse¹ 'yn¹ 'io¹ ngu².
27. Lhie²nyn² Ngon²ngwe¹ 'yn¹ mu¹ ngu².
28. Šan¹nia¹ Siè¹tse¹ 'yn¹ lîò¹ ngu².
29. Lhie²nyn² Ldiu²še¹ 'yn¹ 'io¹ ngu².
30. Lhie²nyn² Sei¹na¹ 'yn¹ ŏwej¹ ngu².
31. Šan¹nia¹ Nie²tse¹ 'yn¹ mu¹ ngu².
32. Lhie²nyn² Šan¹nia¹ 'yn¹ 'io¹ ngu².
33. Ngon²ngwe¹ Kei¹ţez² 'yn¹ ny¹ ngu².
34. Syn¹mei¹ Šan¹nia¹ 'yn¹ ŏwej¹ ngu².
35. Mbe²phon¹ Siè¹tse¹ 'yn¹ ma¹ ngu².
36. Nie²tse¹ Siè¹tse¹ 'yn¹ ___ ngu².

(a) Reconstruct the family tree.

(b) Fill in the blank in the last sentence (there is only one way to do this).

△ Tangut is an extinct language of the Tibeto-Burman family that was spoken in the Tangut Empire (1038–1227, present-day central China). There is no agreement among scholars on what it sounded like, therefore the transcription is based on one of the reconstructions. The superscript numbers indicate its two tones (¹ = flat, ² = rising); in particular, the words for ‘father’ and ‘mother’ are in the first tone. ḡ, ḍ, ḋ, ᴇ, ɉ, Ɉ, ɋ are vowels; ᵋ, ᶸ, ’ are consonants.

—Ivan Derzhanski
Problem #4 (20 points). Here are some short dialogs in Engenni and their English translations:

1. *edēi āno nwâsesê oziy lelemû à? edēi āndô weî ga ðkî nwâsesê oziy lelemû.*
   Will this man frighten the deceived thief?
   This man said that he, the man, would not frighten the deceived thief.

2. *qvûrâmû kînono amemûrê ândô à? qvûrâmû weî ga ðkî kînono amemûrê ândô.*
   Did the woman resemble this girl?
   The woman said that she, the woman, did resemble this girl.

   Did this deceived child not kill the woman?
   The youth said that he, the deceived child, did not kill the woman.

4. *edēi dhia gbûnondô âmol à? qvûrâmû kofîlomû weî ga o gbûnondô âmol.*
   Will the evil man heal the child?
   The coughing woman said that he, the evil man, would heal the child.

5. *amemûrê dhia kînono opîlopo ândô à? qvûrâmû weî ga ð kînono opîlopo ândô.*
   Did the evil girl not resemble this pig?
   The woman said that she, the evil girl, did not resemble this pig.

   Did the thief heal this beaten old man?
   The thief said that he, the thief, did not heal this beaten old man.

7. *oziy ânon kînono edēi kofîlomû à? âmol ândô weî ga ð kînono edēi kofîlomû.*
   Will this thief resemble the coughing man?
   This child said that he, the child, would not resemble the coughing man.

(a) Translate into English:

8. *edēi āndô nwâsesê oziy à? amemûrê weî ga ð nwâsesê oziy.*

Here is also an answer in Engenni without a question for it:

10. *oziy ândô weî ga âmol gbûnondô edēi.*

Translate it into English. If it can be translated in more than one way, provide all translations and explain your reasoning.

(b) Translate into Engenni:

11. Will the old man resemble this coughing youth?
    The child said that he, the old man, would not resemble this coughing youth.
12. Did this beaten woman not frighten the man?
    This beaten woman said that she, the beaten woman, did not frighten the man.

(c) If you were to compile an Engenni dictionary, what would be the base forms of the words 'thief' and 'girl'? Explain your answer.
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\( \Delta \) The Engenni language belongs to the Benue–Congo family. It is spoken by approx. 20,000 people in Nigeria.

The mark \( \ ^ {\prime} \), underneath a word’s first vowel indicates that all of the word’s vowels are pronounced with a slightly lowered tongue. The marks \( \ ^{\prime} \), \( \_ \) and \( \ ^{\prime} \) indicate high, low, and falling tone, respectively; if none is present, the syllable has middle tone.

—Artūrs Semeniks

Problem #5 (20 points). Here are some words and word combinations in Northwest Gbaya and their English translations in arbitrary order:

\( ?\ddot{a}, \ddot{a}\dot{a} \ n\ddot{a}ng \ n\ddot{u} \ k\ddot{e}, \ddot{a}\dot{a} \ s\ddot{e}\ddot{e}, \ b\ddot{u}\ddot{m}\ddot{a} \ y\ddot{f}k, \ b\ddot{u}\ddot{m}\ddot{a} \ z\ddot{u} \ y\ddot{f}k, \ d\ddot{a}ng \ g\ddot{\ddot{e}}k, \ d\ddot{\ddot{e}} \ f\ddot{o}, \ d\ddot{\ddot{e}} \ s\ddot{e}\ddot{e}, \ k\ddot{o} \ y\ddot{f}k, \ k\ddot{o} \ z\ddot{\ddot{e}}k, \ n\ddot{a}ng \ w\ddot{i}, \ n\ddot{u} \ f\ddot{o}, \ n\ddot{u} \ l\ddot{e}\dot{b}e, \ s\ddot{e}\ddot{e} \ w\ddot{i}, \ y\ddot{f}k, \ y\ddot{f}k \ w\ddot{i}, \ z\ddot{u} \)

\( \) at the surface; eye socket; eyebrow; eyelash; eyes/face;
field edge; foot; happiness; liver; good field; nostril;
above, on; poisonous snake; tip of the tongue;
to be dying; to envy; to put

(a) Determine the correct correspondences.

(b) Translate into English: \( b\ddot{u}\ddot{m}\ddot{a} \ z\ddot{u}, \ k\ddot{o}, \ l\ddot{e}\dot{b}e \ g\ddot{\ddot{e}}k, \ l\ddot{e}\dot{b}e \ w\ddot{i} \)

(c) Translate into Northwest Gbaya: at the center; head; displeasure; nose.

\( \Delta \) The Northwest Gbaya language belongs to the Ubangian family. It is spoken by approx. 200,000 people in the Central African Republic.

The Northwest Gbaya words are given in a simplified transcription. \( ? \) is a consonant.

—Boris Iomdin


English text: Ivan Derzhanski, Boris Iomdin, Aleksejs Puguševs, Artūrs Semeniks.

Good luck!