

Twenty-Third International Linguistics Olympiad

Bucharest (Romania), 26 July – 2 August 2026

Individual Contest Problems

Rules for writing out the solutions

Do not copy 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. If you do not do this, your work may be mislaid or misattributed.

Unless stated differently, you should describe any patterns or rules that you identified in the data. Otherwise your solution will not be awarded full marks.

Problem 1 (20 points). Here are some words in Central Yup'ik along with their phonetic transcriptions and translations. All of them are pronounced in the Norton Sound (NS) dialect:

qasgulek	['qaz.ɣu.ʒəkʰ]	<i>ribbon seal</i>
nanevpak	[na.'nəf.pakʰ]	<i>big lake</i>
tep'liuq	['təp.ʒi.uqʰ]	<i>he is making aged fish-heads</i>
nav'pagtuq	['nav.pax.tuqʰ]	<i>it really broke</i>
qamiq'vak	[qa.'miq.vakʰ]	<i>a type of moth</i>
nat'rarkaq	['nat.ɣax.kaqʰ]	<i>sole material for skin boots</i>
calugun	[ca.'ʒu.ɣun]	<i>skin scraper</i>
kaal'taaq	[ka.'aʒ.ta.aqʰ]	<i>playing card</i>
ullelluku	[u.'ʔəʔ.ʔu.ku]	<i>turning it inside out</i>
ilquineq	['iʔ.qu.'i:nəqʰ]	<i>skull</i>
kaltuuvvilaq	['kaʔ.tu.'u:fi.ʒaqʰ]	<i>potato</i>
kayangurngalnguq	[ka.'ja:ɣuɤ.'ɲaʒ.ɲuqʰ]	<i>oval thing</i>
assikekeka	[a.'si:kə.'kək.ka]	<i>I like him</i>
paluteqerru	[pa.'ʒu:tə.'qəx.ɣu]	<i>please close it</i>
iggiggiayuli	[i.'xi:xi.'a:ju.ʒi]	<i>great horned owl</i>
ilalkumalria	[i.'ʒaʔ.ku.'maʒ.ɣi.a]	<i>victim</i>
aepailgaku	[a.'pəp.pa.'iʒ.ɣa.ku]	<i>before asking him</i>
yuarutlertangqertuq	[ju.'a:ɤutʰ.'ʔəx.taɲ.'qəx.tuqʰ]	<i>there is an old song</i>
tutgarllugaq	['tutʰ.xax.'ʔu:ɣaqʰ]	<i>grandchild</i>
cuukvagtalek	[cu.'ukʰ.fax.'ta:ʒəkʰ]	<i>place with many pike (fish)</i>
cangatenrituten	[ca.'ɲa:tən.'ɣi:tu.tən]	<i>there is nothing wrong with you</i>
cungagcessvakartat	[cu.'ɲax.cəs.'fa:kaɣ.tatʰ]	<i>how green they are!</i>

Out of the forms above, only the last four are pronounced differently in General Central Yup'ik (GCY), another dialect of the language. Here are the phonetic transcriptions of these forms, as pronounced in the GCY dialect:

tutgarrlugaq	[tut ^h .ˈxax.ɬu.ɣaq ^h]	<i>grandchild</i>
cuukvagtalek	[cu.ˈuk ^h .ˈfax.ta.ɬək ^h]	<i>place with many pike (fish)</i>
cangatenrituten	[ca.ˈŋaː.ˈtən.ɕi.ˈtuː.tən]	<i>there is nothing wrong with you</i>
cungagcessvakartat	[cu.ˈŋax.ˈcəs.fa.ˈkax.tat ^h]	<i>how green they are!</i>

(a) Write in Central Yup'ik:

1.	[ˈməɬ.qu.ˈɬəɬ.ɬi.ˈux.ta]	<i>wildlife officer</i>
2.	[qa.ˈjaː.pix.ˈkaː.ni]	<i>his own future authentic kayak</i>
3.	[ta.ˈɬiː.xaq ^h]	<i>hook used in kayak</i>
4.	[ˈkəx.sa.ˈiɬ.ku.taɣ ^h]	<i>muzzle for dog</i>
5.	[ˈcup.ɣa.ˈɬax.tuɣ ^h]	<i>he suddenly felt homesick</i>

For forms that are valid in only one of the two dialects (NS or GCY), indicate which dialect is represented.

(b) Write the phonetic transcriptions of the forms below:

6.	aartartuq	<i>he tends to be wary</i>
7.	akekataki	<i>ouch!</i>
8.	negavgun	<i>root used as scrubber in bath</i>
9.	atasuak	<i>summer trousers</i>
10.	ner'ciquq	<i>he will eat</i>
11.	alikenritaqa	<i>I do not fear it</i>
12.	neqlinrrarmek	<i>from fish cut up just now</i>

For transcriptions that differ across dialects, write both transcriptions and indicate the dialect for each of them.

△ The Central Yup'ik language belongs to the Eskimo-Aleut family. It is spoken by approx. 10,000 people in southwestern Alaska in the United States of America.

The mark [ː] indicates that the vowel is long. The mark [·] separates syllables. The mark ['] goes before the stressed syllable(s).

[^h] indicates aspiration of the preceding consonant.

[ə] = *a* in *about*.

[c] ≈ *tch* in *match*.

[j] = *y* in *you*.

[ɬ] = *s* in *sing*, but with the tongue positioned as for *l*; [ɬ̚] = [ɬ], but with vocal cord vibration.

[ŋ] = *ng* in *hang*.

[q] = *c* in *car*, but further back in the mouth.

[x] = *ch* in *Bach*; [χ] = [x], but with vocal cord vibration.

[χ̚] = [x], but further back in the mouth; [ɣ̚] = [χ̚], but with vocal cord vibration.

—Lai Otsuka (consultant: Sally Samson)

Problem 2 (20 points). Here are some words and phrases in Yéli Dnye and their English translations in arbitrary order:

- | | |
|-----------------------|---|
| 1. kpêdê | A. <i>black</i> |
| 2. kpêdêkpêdê | B. <i>extremely white</i> |
| 3. kpaapî ntóó | C. <i>nut that turns black when roasted</i> |
| 4. kpaapî tp:oo | D. <i>small ship</i> |
| 5. nkéli tp:oo | E. <i>the tree has red leaves</i> |
| 6. tpile kpaapîkpaapî | F. <i>white thing</i> |
| 7. yi yâa taataa | G. <i>white cockatoo chick</i> |

Below are some more words and phrases in Yéli Dnye and their English translations in arbitrary order:

- | | |
|----------------------|--------------------------------------|
| 8. chêêpî mbwii miyó | H. <i>bee</i> |
| 9. kinikini | I. <i>chunks of iron</i> |
| 10. limî k:ii | J. <i>European person, foreigner</i> |
| 11. mty:aamty:aa | K. <i>greasy</i> |
| 12. mty:aa wee | L. <i>insect</i> |
| 13. nkéli chêêpî pâa | M. <i>two long and thin stones</i> |
| 14. nkéli pi | N. <i>quickly ("like lightning")</i> |
| 15. tpile wee | O. <i>stick (noun)</i> |
| 16. yi mbwii | P. <i>sweet (adjective)</i> |

Finally, below are yet more words and phrases in Yéli Dnye and their English translations in arbitrary order:

- | | |
|------------------------------------|--------------------------------|
| 17. kémi nt:uu | Q. <i>alcoholic drink</i> |
| 18. k:ii miyó | R. <i>corpse</i> |
| 19. nkéli mbwaa | S. <i>eyeball</i> |
| 20. ngwolo nt:uu | T. <i>green snake</i> |
| 21. mbwaa | U. <i>intestinal worm</i> |
| 22. mwi pê | V. <i>tall and slim person</i> |
| 23. tpile pê k:ii kigha nt:uu k:ii | W. <i>tree trunks</i> |
| 24. pi mbwii | X. <i>two banana plants</i> |
| 25. pi ntóó | Y. <i>(unripe) mango</i> |
| 26. tpile pê yi kuu yâa k:ii | Z. <i>water</i> |
| 27. yi pâa | AA. <i>yellow snake</i> |

(a) Determine the correct correspondences.

(b) Translate into English:

28. k:ii (this word has two meanings; provide both)

29. kpaapî 30. kigha 31. mty:aa 32. nkéli dnye 33. ngwolo 34. kémi kigha nt:uu

(c) Translate into Yéli Dnye:

BB. *(his) son*

EE. *fresh, raw*

HH. *Rossel Island*

CC. *green*

FF. *(unripe) fruit*

DD. *fat, grease*

GG. *black person*

(d) Match the following Yéli Dnye words with the pictures below, knowing that *nté* $\approx$ *k:ii*.

35. *kpaapî tp:oo kpaapî tp:oo*

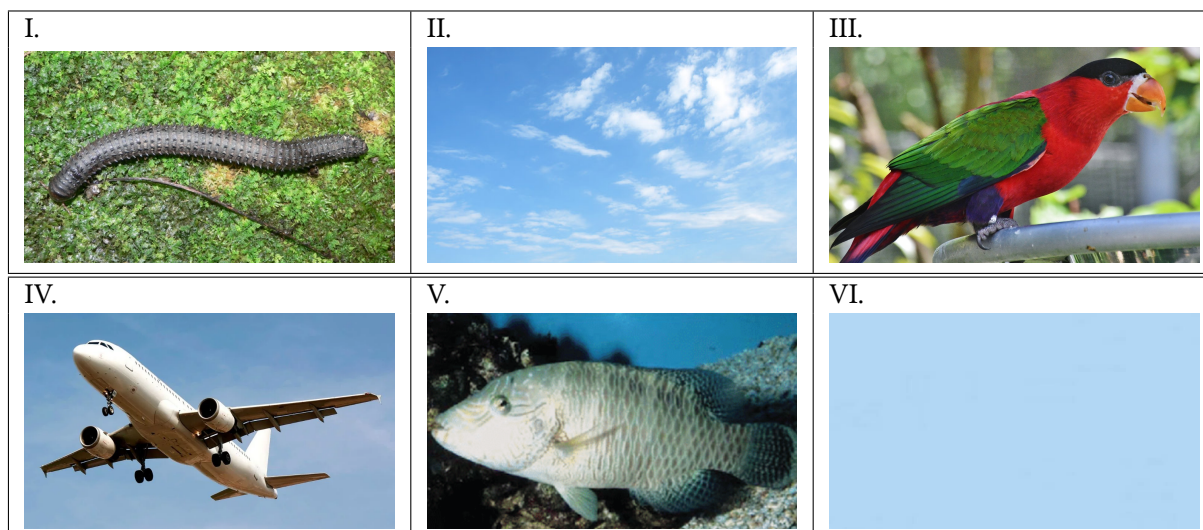
36. *mbóó*

37. *mbóó nté*

38. *mbóó p:uu nkéli*

39. *pê pê*

40. *taa*



(e) Explain how colours are expressed in Yéli Dnye.

⚠ No additional explanation besides the answers is required, nor will be marked.

The Yéli Dnye language is currently unclassified and may be a language isolate. It is spoken by approx. 5000 people on Rossel Island, in the south-eastern part of Papua New Guinea.

A white cockatoo is a type of bird. The southern part of Papua New Guinea was historically under British and later Australian rule.

â, ê, î, é, ó are vowels. The mark : indicates that the following vowel is nasalised.

—Dan-Mircea Mirea

Problem 3 (20 points). Here are some sentences in Iquito and their English translations. Where more than one Iquito sentence corresponds to a single English translation, all possible Iquito sentences are given.

1. Ima paapaaja masiitiirii — Ema will sell the fish (singular).
2. nu=iina isikirii iyyii — They_{sg} will break this rope.
3. $\left\{ \begin{array}{l} \text{ki=iita masiitiirii Jaime} \\ \text{ki=Jaime masiitiirii iita} \end{array} \right\}$ — I will sell Jaime the house.
4. nu=naajuukura simiimi — They_{sg} wrote the book.
5. ki=iina masiirii ikwani saawiri — I will buy this machete of the man.¹
6. ki=iipi asuraaja sakiirii mira — I will chew the manioc of these children.
7. Leo iipi siwiirarii ikwaniwiya — Leo will visit these men.
8. kia=Leo iita irikatajuurii — You_{sg} will repair Leo's house.
9. ki=simiitakura iimi simiimiya — I read (past) these books.
10. nu=iimi irikatajuurii iiminaka — They_{sg} will repair these canoes.
11. kia=kariiniikura miisaji kajinani — You_{sg} cared for the animal of the woman.
12. ki=simiitakura iina simiimi paajuuyaana — I read (past) the book of this teacher.
13. $\left\{ \begin{array}{l} \text{nu=paapaaja miitiirii iina ikwani} \\ \text{nu=iina miitiirii ikwani paapaaja} \end{array} \right\}$ — They_{sg} will give this man the fish (singular).
14. ki=nikikura iipi kaajiya iitimira — I saw the animals of these women.
15. kia=iina simiimiya simiitarii maaya — You_{sg} will read the books of this child.
16. $\left\{ \begin{array}{l} \text{kia=iina masiitiirii simiimi paajuuyaana} \\ \text{kia=paajuuyaana masiitiirii iina simiimi} \end{array} \right\}$ — You_{sg} will sell the teacher this book.

(a) Translate the following sentences into English. Give more than one translation where possible. Make sure each translation can be understood in only one way.

17. kia=iipi siwiirarii miisaji paajuuyaapi
18. nu=nikikura Leo paapaaja
19. ki=iina masiitiirii miisaji iimina
20. ki=iipi kariiniirii iina mira ikwani

(b) Translate the following sentences into Iquito. Give more than one translation where possible.

21. You_{sg} bought the canoes of these children.
22. You_{sg} will break the rope of the teacher.
23. I will buy the house of these women.
24. They_{sg} will sell Ema these books.
25. I will repair this canoe of these men.

△ In this problem, *you* is a singular pronoun, and *they* is a gender-neutral singular pronoun.

The Iquito language belongs to the Zaparoan family. It is spoken by fewer than 100 people in the Peruvian Amazon.

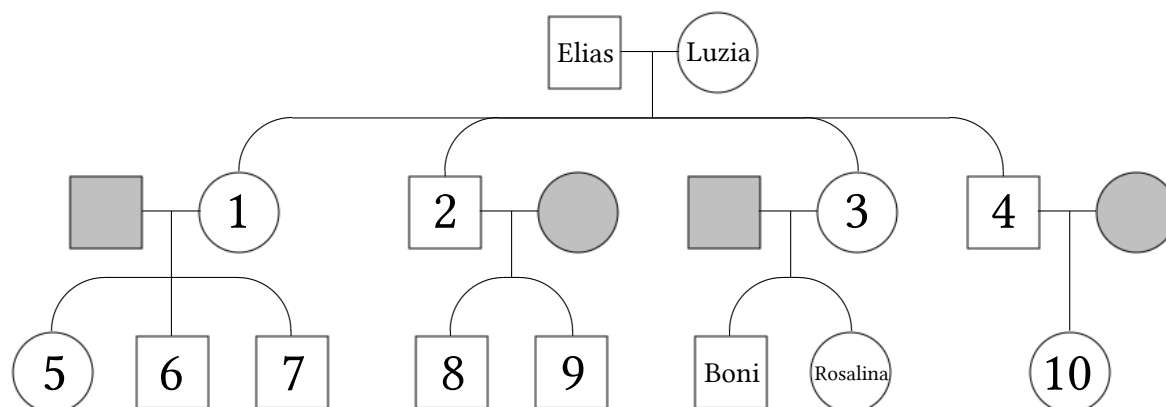
i is a vowel. j = h in *hello*. The mark $\square$ is used to separate two parts of a word. The Iquito language has tones, but for simplicity they are omitted in this problem.

Ema, Jaime and Leo are people's names.

—Eimear McKnight

¹i.e., the man has multiple machetes, and I will buy this one.

Problem 4 (20 points). Here is the family tree of a family of Sakurabiat speakers. In the tree, siblings appear from oldest to youngest, from left to right.



□: man ○: woman ∩: siblings —: marriage |: sons and daughters

The names of four family members are given: the eldest couple (Elias and Luzia) and the two eldest people (Boni and Rosalina) from the youngest generation. Some other family members are identified below by letters (A–J) and represented on the tree by numbers (1–10), not necessarily in this order. People marked in grey do not appear in this problem.

Now observe some of the phrases that these people can say to describe their family relationships. In each column, the speaker is indicated on the left, and the phrases spoken by this person are on the right. For example, G: *Elias abitop* means that G is saying “Elias is *abitop* = my ...”.

Elias: A otak H otaup	B: Rosalina omăykut A okoypet D otak E otaup I omăykut	F: C _____(iv) E okip G āsi I okoypet	H: Elias abitop B oyke C omăykut D _____(vi) E otaup
Luzia: B omēpit	C: I okoypet G āsi	G: Elias abitop Boni okupi mēpit A okupi B _____(v) E okwa taup F omēpit I omēpit	I: F okwa G āsi
Boni: J okip	D: Rosalina _____(ii) F okwa I okupi	J: B abitop F oyke I okoypet	
Rosalina: A āsi	E: C okip D _____(iii) J oyke		
A: Luzia āsi Rosalina omēpit B okwa D okwa tak E okwa taup F oykey mēpit G oykey I _____(i)			

- Match numbers (1–10) with family members (A–J).
- Indicate the birth order of family members (5–10).
- Fill in the blanks (i–vi). There is only one possible answer for each blank, but each answer is not necessarily just one word.

△ The Sakurabiat language belongs to the Tuparian branch of the Tupian family. It is spoken by approx. 13 people in the Brazilian Amazon rainforest, close to the border with Bolivia.

u ≈ oo in *goose* but with the lips unrounded. The mark ◌̃ indicates a nasal vowel.

—Lai Otsuka (consultant: Ana Vilacy Galúcio)

Problem 5 (20 points). Here are some sentences in English and their Komnzo translations:

- | | |
|--|-------------------------|
| 1. <i>I met them yesterday.</i> | kayé thewafé |
| 2. <i>You_{pl} were calling me a week ago.</i> | nümä wobräknwath |
| 3. <i>We were holding them a week ago.</i> | nümä efathwake |
| 4. <i>We held you_{pl} a week ago.</i> | nümä thefafake |
| 5. <i>You_{pl} are meeting us now.</i> | zena nwagrwth |
| 6. <i>We are seeing you_{pl} now.</i> | zena emarwe |
| 7. <i>I am calling them now.</i> | zena ebräknwé |
| 8. <i>They returned you_{pl} a week ago.</i> | nümä thäbrimath |
| 9. <i>You_{pl} were holding us a week ago.</i> | nümä nfathwath |
| 10. <i>We returned them yesterday.</i> | kayé thäbrime |
| 11. <i>You_{pl} saw me a week ago.</i> | nümä zwemarath |
| 12. <i>They called us yesterday.</i> | kayé nznästh |
| 13. <i>They called me a week ago.</i> | nümä zwäsath |
| 14. <i>I was meeting them a week ago.</i> | nümä ewagrwa |

(a) Translate into Komnzo:

15. *You_{pl} held me yesterday.*
16. *I called you_{pl} a week ago.*
17. *You_{pl} are holding me now.*
18. *They met us a week ago.*

(b) Translate into English in all possible ways:

19. **nümä nbrigwath**
20. **kayé thefafé**
21. **nümä emarwa**
22. **kayé nznäbrimth**

△ In this problem, *you* is a plural pronoun.

The Komnzo language belongs to the Yam family. It is spoken by approx. 250 people in the village of Rouku in the south of Papua New Guinea.

ä, é, ü are vowels; **th** is a consonant.

—Vesko Milev (consultant: Christian Döhler)

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English text: Eimear McKnight, Vesko Milev, Dan-Mircea Mirea, Lai Otsuka.

Good luck!

Name and surname _____ Seat number _____

en(B)

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Answer sheet: **Problem 2**

(a)

1.	2.	3.	4.	5.	6.	7.	8.	9.
10.	11.	12.	13.	14.	15.	16.	17.	18.
19.	20.	21.	22.	23.	24.	25.	26.	27.

(b) 28. k:ii –

- _____
- _____

29. kpaapî – _____

30. kîgha – _____

31. mty:aa – _____

32. nkéli dnye – _____

33. ngwolo – _____

34. kémi kîgha nt:uu – _____

(c) BB. *(his) son* – _____

CC. *green* – _____

DD. *fat, grease* – _____

EE. *fresh, raw* – _____

FF. *(unripe) fruit* – _____

GG. *black person* – _____

HH. *Rossel Island* – _____

(d)

35.	36.	37.	38.	39.	40.
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(e) Explain how colours are expressed in Yéli Dnye.

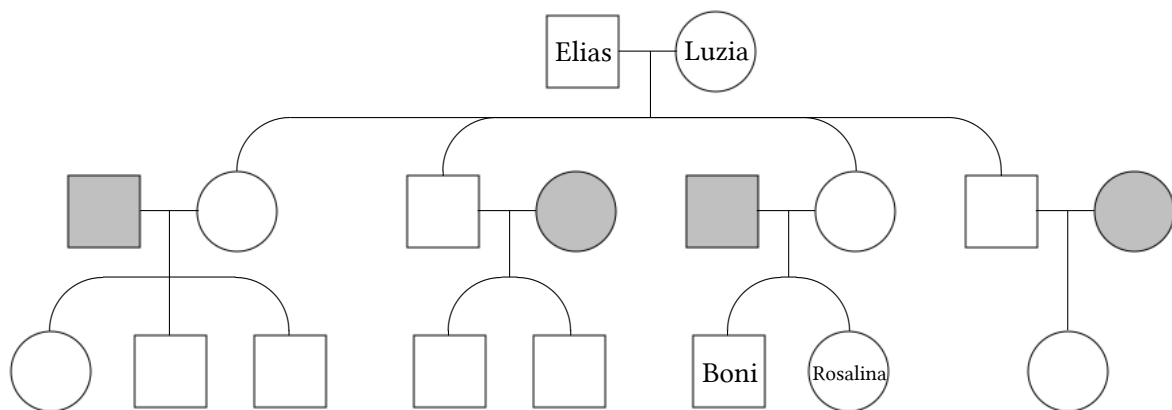
en(B)

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Answer sheet: **Problem 4**

(a)



(b) Boni > Rosalina > > > > > >

(c) (i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____

(vi) _____