Eleventh Taiwan Olympiad in Linguistics
Round 2

15 March 2026

- Listen carefully to the invigilators and follow their instructions.

- The contest lasts **four** hours. Please allocate your answering time.

- There are **five** problems in this problem set.

- You are not allowed to use any electronic devices, written or printed material or other external sources of information during the contest.

- If you have a question about any of the problems, raise your hand and ask an invigilator. The invigilator will consult with the jury before answering.

- Rules for writing out solutions:

  – Do not copy the statements of the problems. Please write your answers on the answer sheet.

  – Avoid using red pens—answers written in red pens will not be graded.

  – You may solve the problems in any order.

  – Unless stated differently, you do not need to describe any patterns or rules that you identified in the data.

Here are some words in Chuvash and their English translations:

Chuvash	English
laˈʃa	*horse*
parˈtiʃøn	*for the party*
ˈvut	*fire*
ˈɕitɕø	*seven*
puˈla	*to the honey*
puˈlaslɔχ	*future*
kalaˈɕu	*conversation*
tøˈryʃlø	*diligent*
ˈjutɔ	*dog*
ɕyˈɕe	*to the hair*
ykerˈni	*painting*
tɕɔvaʃˈsem	*Chuvash people*
ʃanɔˈɕa	*to the hope*
ˈnamɔssɔr	*shameless*

Chuvash	English
armana........(1)	*to the mill*
kyrʃøri..........(2)	*neighboring*
tɕap...............(3)	*fame*
ilem..............(4)	*beauty*
ilemlø...........(5)	*beautiful*
ʃanɔɕ.............(6)	*hope*
øne................(7)	*cow*
ønene...........(8)	*to the cow*
partisem......(9)	*parties*
jatlɔ.............(10)	*named*
ɕyɕ...............(11)	...................(14)
laʃana.........(12)	...................(15)
armanʃɔn...(13)	...................(16)
...................(17)	*to the fire*
...................(18)	*to the dog*
...................(19)	*honeyed*
...................(20)	*famous*
...................(21)	*to the diligence*
...................(22)	*name*
...................(23)	*hopeful*

(a)   Indicate the stress in Chuvash words (1–13).

(b)   Fill in the gaps (14–23) and indicate the stress in Chuvash words (17–23).

Chuvash belongs to the Oghuric branch of the Turkic language family and is spoken by approx. 740,000 people in the Chuvash Republic of Russia and its neighboring regions.

ɕ, **j**, **ʃ**, **tɕ**, **χ** are consonants. **a** ≈ *o* in *hot*, **ɔ** ≈ *augh* in *onslaught*, **ø** ≈ *e* in *get* but slightly rounded, **ɯ** ≈ Southern Min 火 (*ir*), or Mandarin 乌 (*u*) but unrounded, **y** ≈ Mandarin 山 (*ü*). ˈ indicates that the following syllable is the stressed syllable of the word.

In this problem, *party* refers to an organization of people with particular political beliefs.

Here are some sentences in Temiar and their English translations:

1. **beel natəəh ˀimslap**   *I am going to dive when it rains.*
2. **ˀamsɛglɔg ˀakaal**   *We two are going to (go to) sleep soon.*
3. **nabᵊcacaal beel hasalɔg**   *He was talking nonstop when you fell asleep.*
4. **beel hasmaaɲ namslɔɔˀ**   *He is going to lie when you ask.*
5. **ˀibᵊlalug tapiiˀ nayayaap**   *I was laughing uncontrollably, but he suddenly cried.*
6. **nabᵊbɛmhup beel ˀibᵊyɛmyaap**   *He was farting while I was crying.*
7. **nabᵊhɛŋhɛɛk tapiiˀ ˀabᵊɟalɔ̃ɔ̃d**   *He was flying, but we two were sinking together.*
8. **hasmaaɲ sbab ˀipɔɔc**   *You asked, so I waited.*
9. **ˀacakũ̈ũ̈b beel nabᵊkɛmnɔɔm**   *We two closed our eyes together while he was peeing.*
10. **krəˀ ˀickũ̈ũ̈b ˀipləəŋ**   *After I closed my eyes, I opened my eyes.*
11. **ˀilɛk ˀatɛɛˀ**   *I knew it just now.*
12. **habᵊsɛˀlɔɔˀ ˀilɛk**   *You are lying, I know!*

(a) Translate into English:

    13. **ˀalug beel ˀalɛk**

    14. **ˀikanɔɔm beel nabᵊtɛhtəəh**

    15. **krəˀ nacaal nayaap**

    16. **ˀimsɛɲmaaɲ ˀakaal tapiiˀ haslɔg**

(b) Translate into Temiar:

    17. *We two flew together and opened our eyes together.*

    18. *He suddenly farted while you were talking.*

    19. *He is going to dive soon, so I am waiting.*

    20. *He lied, so he has fallen asleep and is not waking.*

Temiar belongs to the Aslian branch of the Austroasiatic family. It is spoken by approx. 40,000 people in Kelantan and Perak, Malaysia.

ɛ, **ə**, **ɔ**, **ʉ** are vowels. The ˜ on a vowel indicates nasalization. Superscript vowels indicate vowel reduction. **y** ≈ *y* in *yes*. **c** ≈ *c* in *cute* or *t* in *tube*. **ɟ** ≈ *g* in *wagyu* or *d* in *duke*. **ɲ** ≈ *ny* in *canyon*. **ˀ** = the unwritten consonant between *e* and *e* of *seediq* in the Seediq language, or the unwritten consonant between the two syllables of *uh-oh* in English.

Here are some words in Kaigani Haida and their English translations in arbitrary order:

1.	**g̱áan skáa sg̱wáansang**	A.	*a tray*
2.	**g̱áan sḵ'a hlg̱únahl**	B.	*a kitchen sink*
3.	**g̱áadaangw g̱a hlg̱únahl**	C.	*a berry*
4.	**kit'uu sḵ'a sg̱wáansang**	D.	*a harpoon*
5.	**kit'uu dáagal sg̱a stánsang**	E.	*a blade of grass*
6.	**ḵíihlaa dláanwaay g̱a sg̱wáansang**	F.	*two arms (of human)*
7.	**ḵíihlaa tl'a sg̱wáansang**	G.	*two reeds*
8.	**ḵ'án sg̱a sg̱wáansang**	H.	*three rudders*
9.	**ḵ'án sḵ'a sdáng**	I.	*three whorled univalve shells*
10.	**sándiigaa sg̱a tléehl**	J.	*three bathtubs*
11.	**sgi skáajaaw skáa stánsang**	K.	*three bananas*
12.	**sgíndaaw tl'a hlg̱únahl**	L.	*four pectoral fins*
13.	**skáy g̱a stánsang**	M.	*four harpoon's lanyards*
14.	**skáy skáa hlg̱únahl**	N.	*four threaded lids*
15.	**stáw stlíin sḵ'a tléehl**	O.	*four wash basins*
16.	**xyáay sḵ'a sdáng**	P.	*four baseballs*
17.	**xyáay tl'a stánsang**	Q.	*five sea urchin spines*
18.	**x̱ángaang dláanwaay g̱a stánsang**	R.	*five weeks*

(a) Determine the correct correspondences.

(b) Translate into English:

19. **dáagal sg̱a hlg̱únahl**   20. **sgi skáajaaw sḵ'a stánsang**

(c) Translate into Kaigani Haida:

21. *a bowl*   22. *five steering paddles*   23. *two sea urchins*

Haida is a language isolate. The Kaigani Haida dialect is spoken by 10 people, all of whom are elderly, on Prince of Wales Island in Alaska, USA.

dl, **g̱**, **hl**, **ḵ**, **ḵ'**, **ng**, **t'**, **tl**, **tl'**, **x**, **x̱**, **y** are consonants. The mark ´ on vowels indicates accent.

A harpoon is a spear-like tool used for hunting marine life, usually with a connecting rope (lanyard). A reed is an aquatic plant with a hard stem. A rudder is a plate-like structure at the stern of

a ship used to change course. A threaded lid is a cover that is tightened by screwing and has spiral patterns. Photos of a steering paddle, a bowl and a whorled univalve shell are shown below.

steering paddle

bowl

whorled univalve shell

Seven Malak Malak speakers (A–G, including 5 women, **Biddy**, **Jigbala**, **Kabat**, **Kitty**, **Pirak** and 2 men, **Kunbuk** and **Matjarr**, in arbitrary order) met at the campsite entrance in July. Below is a map showing the Malak Malak speaking area, a vicinity map of the campsite, and a diagram showing the positions and facing directions of some of the speakers (the arrow indicates the facing direction).
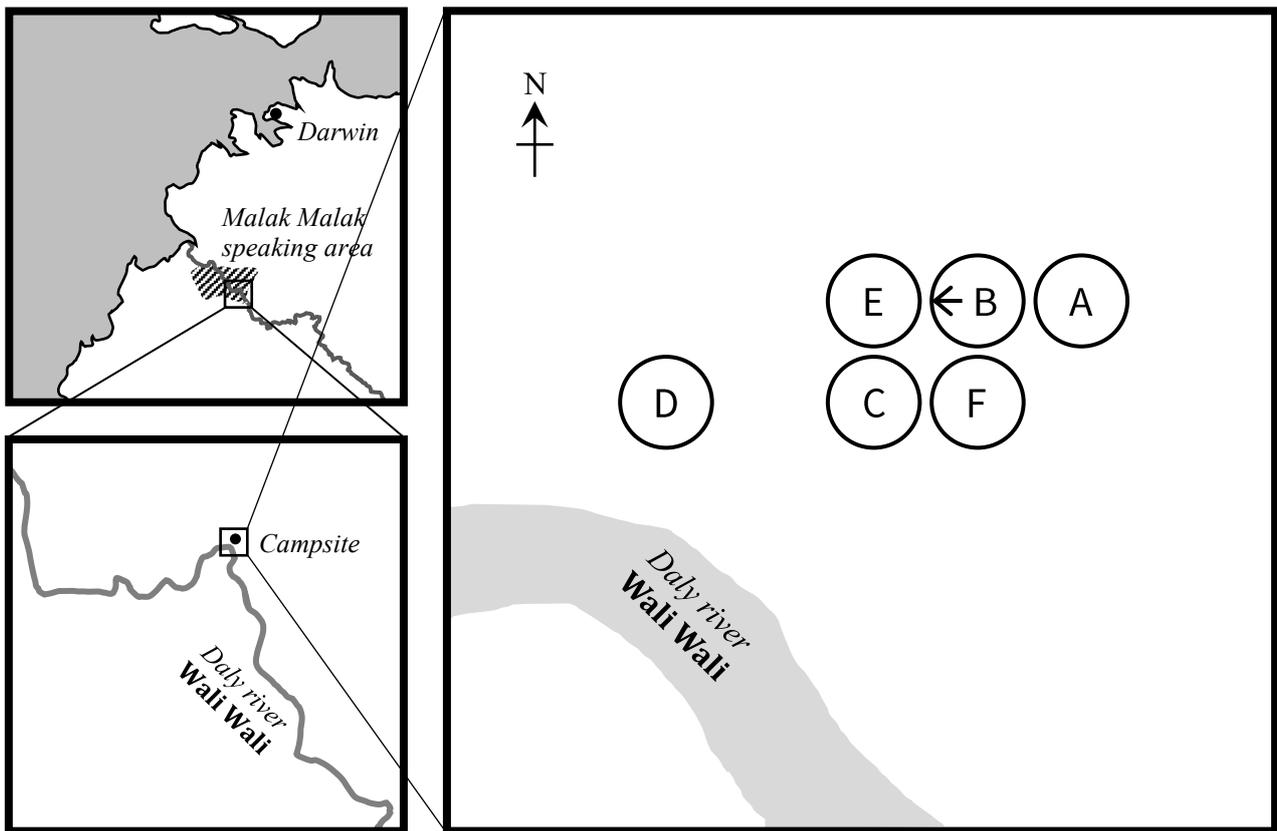
One of the persons greeted the other with "**wara anda! miriwanyara wuyu**" (*How are you? It is sunny*). After exchanging pleasantries, A–E each described their standing positions and the directions they were facing. It is known that they do not use the third person for self-expression.

A said:

dangiden pudang eyue

Speaking of **Kabat**, A said:

miri tjalkma nuentjue
payagang tjedali nuentjue

Speaking of **Jigbala**, B said:

miri baigama nuentjue
dangiden pudang nuentjue

Speaking of **Kitty**, C said:

miri tjalkma nuentjue
dangiden pudang nuentjue

Speaking of **Matjarr**, C said:

miri baigama yueyue

Biddy pudang tjedali yueyue

nulyen pudang yueyue

Speaking of **Pirak**, D said:

miri baigama nuentjue

Wali Wali pudang tjedali nuentjue

Kunbuk pudang tjedali nuentjue

Speaking of **Kabat**, D said:

Biddy pudang tjedali nuentjue

Biddy miri tjalkma Kabat miri baigama

Speaking of **Kunbuk**, D said:

Kunbuk pudang tjedali eyue

Wali Wali payagang tjedali yueyue

E said:

nulyen pudang eyue

(a) Determine who A–G are respectively.

(b) Please draw the position of G and the facing directions of A, C–G in the diagram.

(c) Another man, **Tapnuk**, and a woman, **Midinyen**, were also in the campsite. It is known that **kantjuk** means *on top*. When speaking of **Midinyen**, **Tapnuk** said:

miri kantjukma nuentjue

Translate into English.

(d) **Tapnuk** and **Midinyen** then adjusted their positions as follows:
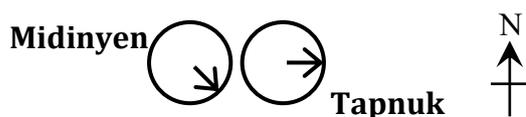
Please describe the relative positions or facing directions of the two people in Malak Malak from a third-person perspective.

1. Speaking of **Tapnuk**, you said: (facing direction)
2. Speaking of **Midinyen**, you said: (facing direction)
3. Speaking of them both, you said: (their relative positions)

Malak Malak is a language isolate. It is spoken by 7 people in the Daly basin in Northern Territory, Australia.

ly, **ny**, **ng**, **rr**, **tj**, **y** are consonants. **ue** is a vowel.

Here are some equations in Latin scripted Sora language or in Sora numeral system:

$$\textbf{gulji} \times \textbf{migelgulji} = ꔼꔴꔴ$$
$$\textbf{unji} \times \textbf{unji} = \textbf{migelunji}$$
$$\textbf{tudru} \times \textbf{tinji} = \textbf{bakuri migelbago}$$
$$\textbf{bokuri} + ꔼ0 = \textbf{bakuri}$$
$$\textbf{bago} + \textbf{aboy} = ꔼ + ꔼ = \textbf{yagi}$$
$$\textbf{yagi} \times \textbf{bokuri migelmonloy} = ꔼꔼꔼ$$
$$\textbf{gelmuy} \times \textbf{tamji} = LL$$
$$\textbf{bago}ᑊ = \textbf{bosua bokuri tamji}$$
$$\textbf{bokuri migeltudru} + \textbf{gelji} = \textbf{bakuri tamji}$$
$$\textbf{migel} \times ᑊ = ᑊ0$$
$$\textbf{unjikuri migelboy} + \textbf{gelji} = \textbf{bosua yagi}$$
$$ꔴL + ᑊ = ꔴꔴ$$

Here are some Sora numerals and their values. The Sora numerals are in Latin scripted Sora language or in Sora numeral system:

value	Latin scripted Sora language	Sora numeral system
31	…………………………(1)	…………………(2)
…………(3)	**tinji**	…………………(4)
…………(5)	**yakuri gelji**	…………………(6)
…………(7)	**bagusua bakuri monloy**	…………………(8)
…………(9)	……………………………… (10)	ꔼᑊL
………(11)	……………………………… (12)	ᑊᑊ

Fill in the gaps (1–12).

Sora language belongs to the Munda branch of the Austroasiatic family. It is spoken by approx. 410,000 people in southern Odisha, India. Sora is written using several scripting systems, with the Sora Sompeng script (including the numeral system in this problem) being the native script, created by Mangei Gomango in 1936.

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Good luck!