

en(A)

Twenty-second International Linguistics Olympiad

Taipei (Taiwan), July 20–27, 2025

Team Contest Problem

This problem looks at a few languages spoken in eastern Nepal belonging to the Kiranti branch of the Sino-Tibetan family. As part of the same language family, Kiranti languages are distantly related to the Chinese languages, as can be seen by comparing the following Athpare (Kiranti) words with their Mandarin, Cantonese and Hokkien (Chinese) cognates:

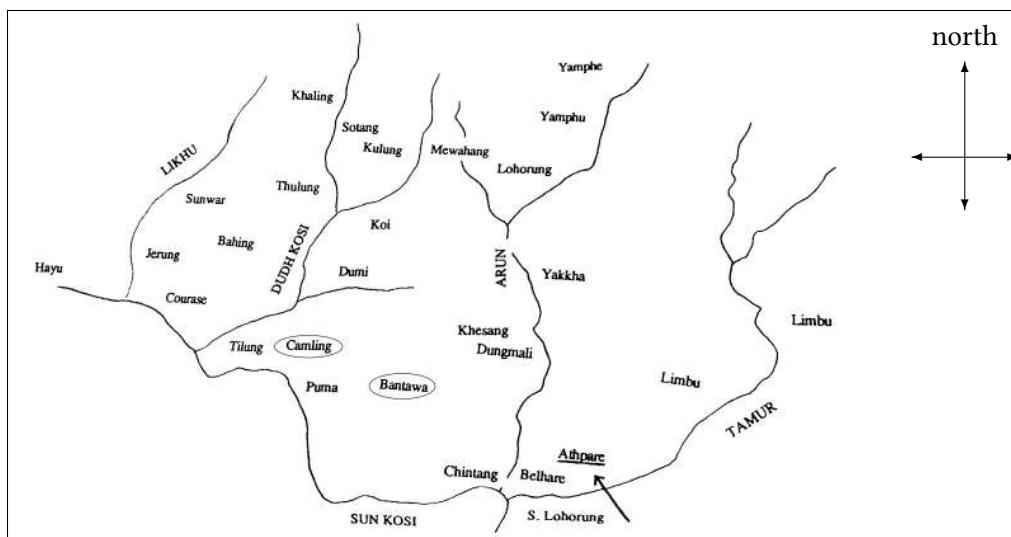
Athpare	sima	<i>to die</i>	Mandarin	si3	<i>to die</i>
Athpare	sepma	<i>to kill</i>	Cantonese	saat3	<i>to kill</i>
Athpare	khomma	<i>to look for, to search</i>	Hokkien	khoaⁿ	<i>to see, look at, watch</i>

In Kiranti languages, personal pronouns can refer to one person (singular: \bigcirc_{sg}), two people (dual: \bigcirc_{du}) or more than two people (plural: \bigcirc_{pl}). They also distinguish between ‘us, including you’ (inclusive “we”: we^+) and ‘us, not including you’ (exclusive “we”: we^-); for example, $we_{\text{du}}^+ = \text{I} + \text{you}_{\text{sg}}$. They do not distinguish pronouns on the basis of gender, so for the sake of simplicity, feminine forms (*she, her*) are used throughout this problem.

The verbs in Kiranti languages change depending on the subject and object of the action, but one verbform can often be used for more than one subject-object pair. This can be seen in the following sets of examples in Athpare. The verbs are given in bold.

unna khani masedie	<i>she killed you_{pl}</i>
unciija khani masedie	<i>they_{du/pl} killed you_{pl}</i>
khanciya aja asetcicija	<i>you_{du} will kill me</i>
khanna ancija asetcicija	<i>you_{sg} will kill us_{du}⁻</i>

△ Athpare is spoken by approx. 5000 people in a number of villages in the Dhankuta district of eastern Nepal. See the map below.



Map of the Kiranti language area
(source: Ebert 1997, *A Grammar of Athpare*)

Part I. Camling

The Camling language (or Chamling) is a Kiranti language spoken by approx. 80,000 people, centered around the Khotang district. **c** = *ts* in *cats*. **ə** = *a* in *about*. **h** indicates aspiration of the preceding consonant. **ng** = *ng* in *sing*. **y** = *y* in *yacht*. **~** indicates nasalization of a vowel.

- (a) Below are some verbs in the North-West dialect of Camling and their English translations. The verbs and translations are split into groups of 8, with the translations in a random order within each group.

Match the verbs with their translations.

1. takhisika	3. lodace	5. khisunga	7. khisumke
2. palodunga	4. tyoku	6. lodumka	8. talodəi
A. we_{pl}^- will comb her		E. she saw her	
B. we_{du}^+ will tell her/them _{du/pl}		F. you _{sg} combed us _{pl} ⁻	
C. I combed her		G. you _{sg/du/pl} will tell me	
D. she/they _{du/pl} told me		H. we _{du} ⁻ told her	

9. taprata	11. takhatine	13. khicka	15. ryunga
10. mirie	12. khice	14. prataci	16. dungi
I. we_{pl}^+ drank		L. you _{pl} will go	
J. we_{du}^+ will quarrel; they _{du} will quarrel		M. you _{sg} shouted	
K. we_{du}^+ shouted; they _{du} shouted		N. we _{du} ⁻ quarreled	
		O. they _{pl} will laugh	
		P. I laughed	

17. taidunga	19. taidaci	21. paidunga	23. idacka
18. paidacka	20. idunga	22. idaci	24. paidaci
Q. I gave her		T. she/they _{du/pl} gave me	
R. she/they _{du/pl} gave you _{du} ; you _{du} gave her/them _{du/pl}		U. she/they _{du/pl} gave us _{du} ⁻	
S. they _{du} gave her/them _{du/pl} ; she/they _{du/pl} gave us _{du} ⁺		V. you _{sg/du/pl} gave me	
		W. we _{du} ⁺ gave her/them _{du/pl}	
		X. we _{du} ⁻ gave her/them _{du/pl}	

25. seine	27. khinane	29. khōna	31. tōne
26. inani	28. prainha	30. lonani	32. cainhani
Y. <i>I/we_{du/pl} looked at you_{sg}</i>	DD. <i>I/we_{du/pl} beat you_{pl} (past)</i>		
Z. <i>I/we_{du/pl} will comb you_{pl}</i>	EE. <i>I/we_{du/pl} will kill you_{sg}</i>		
AA. <i>I/we_{du/pl} gave you_{pl}</i>	FF. <i>I/we_{du/pl} told you_{pl};</i> <i>I/we_{du/pl} sold you_{pl}</i>		
BB. <i>I/we_{du/pl} will see you_{sg}</i>			
CC. <i>I/we_{du/pl} shouted at you_{sg}</i>			

33. ritumcum	35. pacaidhunga	37. setumcumka	39. patyokacka
34. taphlodace	36. losungcunga	38. praithōi	40. talodyucyu
GG. <i>you_{sg} told them_{du/pl}</i>	KK. <i>you_{du} will help her</i>		
HH. <i>I sold them_{du/pl}</i>	LL. <i>she/they_{du/pl} beat me (past)</i>		
II. <i>she/they_{du/pl} saw us_{du}[−]</i>	MM. <i>we_{pl}⁺ laughed at them_{du/pl}</i>		
JJ. <i>I will shout at her</i>	NN. <i>we_{pl}[−] killed them_{du/pl}</i>		

- (b) Here are 10 more verbs, this time in the South-East dialect of Camling, and their English translations. Match the verbs with their translations. Some of these verbs are the same in both dialects.

41. khamipaidhe	43. pata	45. khapaidhace	48. khangyo
42. khataphoda	44. tata	46. khatapaidhine	49. khata
OO. <i>you_{sg} came; she brought her</i>		47. khakhanga	50. mita
PP. <i>she looked at me/us_{du/pl}[±]</i>		TT. <i>she will look at her</i>	
QQ. <i>you_{sg} helped me/us_{du/pl}[−]</i>		UU. <i>she went</i>	
RR. <i>she shouted</i>		VV. <i>they_{pl} will shout at me/us_{du/pl}[±]</i>	
SS. <i>you_{pl} will shout at me/us_{du/pl}[−]</i>		WW. <i>they_{pl} came</i>	
		XX. <i>they_{du} will shout at me/us_{du/pl}[±]</i>	

Part II. Bantawa

The Bantawa language is a Kiranti language spoken by approx. 160,000 people, centered around the Bhojpur district of Eastern Nepal, to the east of Khotang district. **c** = *ts* in *cats*. **h** indicates aspiration of the preceding consonant. **i** ≈ *oo* in *goose* but with the lips unrounded. **ŋ** = *ng* in *sing*. **w** = *w* in *watch*. **y** = *y* in *yacht*. **?** is a consonant (known as the glottal stop).

- (c) On the next pages are some verbs in Bantawa. The verbs and translations are split into groups of 12, with the translations in a random order within each group.

Match the verbs with their translations.

1. tisici	4. tatcuŋcu?a	7. ittacu	10. ici
2. parŋyanŋ	5. setniŋni	8. ti?iyaŋa	11. patŋa
3. patna	6. ti?ittu	9. pattum	12. pattuŋ
A. <i>we</i> [−] _{du/pl} <i>were killing you</i> _{sg/du/pl} ; <i>we</i> [−] _{du/pl} <i>are killing you</i> _{sg/du/pl}		F. <i>I was shouting</i>	
B. <i>we</i> ⁺ _{pl} <i>shouted at her</i> ; <i>we</i> ⁺ _{pl} <i>will shout at her</i>		G. <i>you</i> _{sg} <i>were laughing</i>	
C. <i>I will shout</i>		H. <i>you</i> _{sg} <i>laughed at her</i> ; <i>you</i> _{sg} <i>will laugh at her</i>	
D. <i>I shouted at you</i> _{sg} ; <i>I will shout at you</i> _{sg}		I. <i>we</i> [−] _{du} <i>are bringing her</i>	
E. <i>I shouted at her</i> ; <i>I will shout at her</i>		J. <i>you</i> _{du} <i>will die</i>	
		K. <i>we</i> ⁺ _{du} <i>laughed at her</i>	
		L. <i>we</i> ⁺ _{du} <i>will laugh</i>	

13. nik ^h at	16. nik ^h attaci	19. ik ^h atta	22. nik ^h attin
14. ik ^h atcu	17. tik ^h atcu	20. tik ^h atnin	23. nik ^h attaci?
15. ik ^h attanjeŋ	18. tik ^h atŋa	21. tik ^h attanjeŋniŋ	24. tik ^h atŋanjeŋniŋ
M. <i>you</i> _{sg/du/pl} <i>took us</i> [−] _{du/pl} ; <i>you</i> _{sg/du/pl} <i>will take us</i> [−] _{du/pl}		S. <i>you</i> _{pl} <i>will take me</i>	
N. <i>they</i> _{du} <i>took me</i>		T. <i>you</i> _{sg} <i>will take me</i>	
O. <i>she/they</i> _{du/pl} <i>took us</i> [−] _{du}		U. <i>you</i> _{du} <i>will take her</i>	
P. <i>they</i> _{du} <i>will take her</i>		V. <i>she/they</i> _{du/pl} <i>will take you</i> _{sg}	
Q. <i>she/they</i> _{du/pl} <i>took us</i> ⁺ _{du} / <i>you</i> _{du}		W. <i>she/they</i> _{du/pl} <i>took you</i> _{pl} ; <i>she/they</i> _{du/pl} <i>will take you</i> _{pl}	
R. <i>you</i> _{pl} <i>took me</i>		X. <i>they</i> _{pl} <i>took her</i>	

25. iptunj	28. k^hamyumcimka	31. tiwatcuci	34. wattacu?
26. ti?inacuci	29. itnanin	32. incu?	35. pim
27. waknaci	30. k^hattu	33. tik^hansumcim	36. t^haktumka
Y. <i>we⁻_{pl} brought her up;</i> <i>we⁻_{pl} will bring her up</i>		<i>you⁻_{pl} will send them_{du/pl}</i>	
Z. <i>I laughed at you_{pi};</i> <i>I will laugh at you_{pl}</i>		FF. <i>she took her;</i> <i>she will take her</i>	
AA. <i>you_{du} sold them_{du/pl}</i>		GG. <i>we⁻_{du} will sell her</i>	
BB. <i>I made you_{du} enter;</i> <i>I will make you_{du} enter</i>		HH. <i>we⁻_{pl} were looking at them_{du/pl};</i> <i>we⁻_{pl} are looking at them_{du/pl}</i>	
CC. <i>you_{du} will make them_{du/pl} wear (it)</i>		II. <i>I put her to sleep (past);</i> <i>I will put her to sleep</i>	
DD. <i>we⁺_{du} made her wear (it)</i>		JJ. <i>we⁺_{pl} gave her;</i> <i>we⁺_{pl} will give her</i>	
EE. <i>you_{pl} sent them_{du/pl};</i>			

37. mik^hiya	40. mik^hiyanya	43. imsinka	46. waru?
38. imca	41. k^hin	44. k^hatyaj	47. k^hat
39. k^harañaci	42. wañaj	45. mik^hiyaj	48. t^hanjja
KK. <i>I entered</i>		QQ. <i>she is going</i>	
LL. <i>we⁺_{du} were going;</i> <i>they_{du} were going</i>		RR. <i>we⁺_{pl} quarreled;</i> <i>we⁺_{pl} will quarrel</i>	
MM. <i>we⁻_{pl} slept;</i> <i>we⁻_{pl} will sleep</i>		SS. <i>we⁻_{du} will sleep</i>	
NN. <i>they_{pl} quarreled</i>		TT. <i>they_{pl} are quarreling</i>	
OO. <i>I will come up</i>		UU. <i>she will go</i>	
PP. <i>they_{pl} were quarreling</i>		VV. <i>she was wearing it</i>	

Part III. Camling and Bantawa

- (d) On this page are some verb phrases in English (1–36) and some verbforms in Camling (A–O) and Bantawa (AA–OO).

Each verb phrase in English has a corresponding verbform in either Camling or Bantawa. Match each English verb phrase with its corresponding Kiranti verbform. Some Kiranti verbforms correspond with more than one verb phrase in English.

- | | |
|--|---|
| 1. <i>they_{du} brought us_{pl}[−] over</i> | 19. <i>you_{pl} threw (it) at them_{pl}</i> |
| 2. <i>she met me</i> | 20. <i>we_{pl}⁺ warned them_{du}</i> |
| 3. <i>you_{sg} were sending me</i> | 21. <i>you_{pl} are teasing her</i> |
| 4. <i>we_{du}[−] danced for them_{du}</i> | 22. <i>they_{pl} will embrace us_{pl}[−]</i> |
| 5. <i>they_{du} will leave (it) for you_{sg}</i> | 23. <i>you_{du} will disturb me</i> |
| 6. <i>I will pinch them_{du}</i> | 24. <i>they_{pl} killed (it) for you_{sg}</i> |
| 7. <i>we_{pl}[−] will say</i> | 25. <i>you_{pl} begged us_{du}[−]</i> |
| 8. <i>you_{du} combed me</i> | 26. <i>she will leave (it) for you_{sg}</i> |
| 9. <i>you_{sg} ground it</i> | 27. <i>you_{du} begged us_{du}[−]</i> |
| 10. <i>they_{pl} will help them_{du}</i> | 28. <i>she brought her down</i> |
| 11. <i>we_{du}[−] are calling them_{pl}</i> | 29. <i>they_{du} killed (it) for you_{sg}</i> |
| 12. <i>she will kick me</i> | 30. <i>we_{du}⁺ will sweep them_{pl}</i> |
| 13. <i>she swept them_{pl}</i> | 31. <i>we_{pl}⁺ will say</i> |
| 14. <i>she is pinching us_{du}⁺</i> | 32. <i>I will grind them_{pl}</i> |
| 15. <i>she will trample you_{pl}</i> | 33. <i>she brought us_{pl}[−] over</i> |
| 16. <i>she will embrace us_{pl}[−]</i> | 34. <i>we_{pl}⁺ will throw it</i> |
| 17. <i>you_{sg} helped them_{du}</i> | 35. <i>she will put it</i> |
| 18. <i>they_{pl} will trample you_{pl}</i> | 36. <i>you_{sg} kept them_{pl}</i> |

Camling (North-West Dialect)

- | | | |
|---------------------|-----------------------|-----------------------|
| A. <i>bikucyu</i> | F. <i>pakyo</i> | K. <i>takhlakine</i> |
| B. <i>chik̩ic̩i</i> | G. <i>paphlodocyō</i> | L. <i>tangaide</i> |
| C. <i>horsumne</i> | H. <i>ringike</i> | M. <i>tangakacka</i> |
| D. <i>ityu</i> | I. <i>tahordumcum</i> | N. <i>tangasyucyu</i> |
| E. <i>pabaidika</i> | J. <i>taiku</i> | O. <i>taseida</i> |

Bantawa

AA. bikcuci	FF. nib ^h emsinka	KK. tik ^h ansanyaŋ
BB. butcuŋcuci?a	GG. nic ^h ikciŋci	LL. tinetŋançciŋ
CC. ceŋsumcim	HH. t ^h optacuci?a	MM. tip ^h asuci
DD. id ^h apŋa	II. tik ^h ittançciŋ	NN. wintuŋciŋ
EE. ituwaŋ	JJ. ticurumyum	OO. yŋin

(e) Translate these verbs from Camling into English, giving all possible interpretations:

- | | | |
|------------------|--------------|---------------|
| i. idum | iii. rinaci | v. khangueyu |
| ii. talosumcumne | iv. tadungdi | vi. tadungace |

(f) Translate these verbs from Bantawa into English, giving all possible interpretations:

- | | | | |
|-----------------|---------------|--------------|--------------|
| i. ticattançciŋ | iii. tiduŋyaŋ | v. tacinci?a | vii. paraja |
| ii. niseraj | iv. piwacu | vi. nitaraci | viii. iptuci |

(g) Translate to Bantawa:

- | | |
|--|---|
| i. <i>you_{du}</i> are entering | iii. <i>you_{sg}</i> are selling her |
| ii. <i>I</i> was putting <i>them_{pl}</i> to sleep | iv. <i>they_{du}</i> are combing <i>them_{du}</i> |

(h) Translate into Bantawa and Camling (giving the form for both Camling dialects, if different):

- | | |
|---|--|
| i. <i>we_{pl}</i> will bring her | vii. <i>we_{du}</i> ⁺ went |
| ii. <i>she</i> gave <i>us_{du}</i> | viii. <i>you_{pl}</i> will shout at me |
| iii. <i>we_{du}</i> will come | ix. <i>they_{du}</i> will laugh at <i>you_{du}</i> |
| iv. <i>they_{du}</i> will comb <i>you_{pl}</i> | x. <i>they_{pl}</i> died |
| v. <i>we_{du}</i> ⁻ killed <i>you_{sg}</i> | xi. <i>she</i> helped her |
| vi. <i>we_{pl}</i> quarreled | xii. <i>you_{pl}</i> will kill her |

—Samuel Ahmed

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Good luck!

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Answer sheet

Team:

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

Part I.

(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.	28.	29.	30.	31.	32.
33.	34.	35.	36.	37.	38.	39.	40.

(b)

Part II.

(c)

Part III.

(d)

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.	28.	29.	30.	31.	32.	33.	34.	35.	36.

- (e) i. **idum** – _____ (f) i. **ticattançinj** – _____
 ii. **talosumcumne** – _____ ii. **niseraŋ** – _____
 iii. **rinaci** – _____ iii. **tidunyaj** – _____
 iv. **tadungdi** – _____ iv. **piwacu** – _____
 v. **khangucyu** – _____ v. **taciŋci?a** – _____
 vi. **tadungace** – _____ vi. **nitaraci** – _____
 vii. **paranya** – _____ viii. **iptuci** – _____

- (g) i. ***you_{du}* are entering** – _____
 ii. ***I was putting them_{pl}* to sleep** – _____
 iii. ***you_{sg}* are selling her** – _____
 iv. ***they_{du}* are combing *them_{du}*** – _____

(h)

	Bantawa	Camling
i. <i>we_{pl}</i> will bring her		
ii. <i>she gave us_{du}</i>		
iii. <i>we_{du}</i> will come		
iv. <i>they_{du}</i> will comb <i>you_{pl}</i>		
v. <i>we_{du}</i> killed <i>you_{sg}</i>		
vi. <i>we_{pl}</i> quarreled		
vii. <i>we_{du}</i>⁺ went		
viii. <i>you_{pl}</i> will shout at me		
ix. <i>they_{du}</i> will laugh at <i>you_{du}</i>		
x. <i>they_{pl}</i> died		
xi. <i>she helped her</i>		
xii. <i>you_{pl}</i> will kill her		