

## 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:

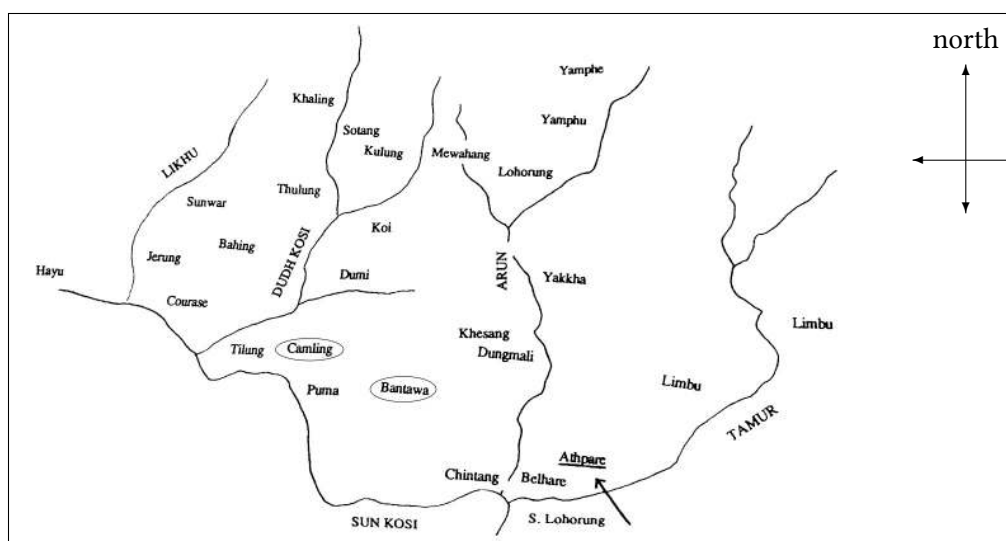
Athpare	<b>sima</b>	<i>to die</i>	Mandarin	si3	<i>to die</i>
Athpare	<b>sepma</b>	<i>to kill</i>	Cantonese	saat3	<i>to kill</i>
Athpare	<b>khomma</b>	<i>to look for, to search</i>	Hokkien	khòa <sup>n</sup>	<i>to see, look at, watch</i>

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,  $we_{du}^+$  = ‘I + you<sub>sg</sub>’. 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 <b>masedie</b>	<i>she killed you<sub>pl</sub></i>
unciŋa khani <b>masedie</b>	<i>they<sub>du/pl</sub> killed you<sub>pl</sub></i>
khanciya aŋa <b>asetciciŋa</b>	<i>you<sub>du</sub> will kill me</i>
khanna anciŋa <b>asetciciŋa</b>	<i>you<sub>sg</sub> will kill us<sub>du</sub><sup>-</sup></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. <b>takhisika</b>	3. <b>lodace</b>	5. <b>khisunga</b>	7. <b>khisumke</b>
2. <b>palodunga</b>	4. <b>tyoku</b>	6. <b>lodumka</b>	8. <b>talodāi</b>
A. $we_{pl}^-$ will comb her		E. <i>she saw her</i>	
B. $we_{du}^+$ will tell her/them <sub>du/pl</sub>		F. $you_{sg}$ combed $us_{pl}^-$	
C. <i>I combed her</i>		G. $you_{sg/du/pl}$ will tell me	
D. $she/they_{du/pl}$ told me		H. $we_{du}^-$ told her	

9. <b>taprata</b>	11. <b>takhatine</b>	13. <b>khicka</b>	15. <b>ryunga</b>
10. <b>mirie</b>	12. <b>khice</b>	14. <b>prataci</b>	16. <b>dungi</b>
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>I laughed</i>	

17. <b>taidunga</b>	19. <b>taidaci</b>	21. <b>paidunga</b>	23. <b>idacka</b>
18. <b>paidacka</b>	20. <b>idunga</b>	22. <b>idaci</b>	24. <b>paidaci</b>
Q. <i>I gave her</i>		T. $she/they_{du/pl}$ gave me	
R. $she/they_{du/pl}$ gave $you_{du}$ ; $you_{du}$ gave her/them <sub>du/pl</sub>		U. $she/they_{du/pl}$ gave $us_{du}^-$	
S. $they_{du}$ gave her/them <sub>du/pl</sub> ; $she/they_{du/pl}$ gave $us_{du}^+$		V. $you_{sg/du/pl}$ gave me	
		W. $we_{du}^+$ gave her/them <sub>du/pl</sub>	
		X. $we_{du}^-$ gave her/them <sub>du/pl</sub>	

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

33. <b>ritumcum</b>	35. <b>pacaidhunga</b>	37. <b>setumcumka</b>	39. <b>patyokacka</b>
34. <b>taphlodace</b>	36. <b>losungcunga</b>	38. <b>praidhã</b>	40. <b>talodyucyu</b>
GG. <i>you<sub>sg</sub> told them<sub>du/pl</sub></i>	KK. <i>you<sub>du</sub> will help her</i>		
HH. <i>I sold them<sub>du/pl</sub></i>	LL. <i>she/they<sub>du/pl</sub> beat me (past)</i>		
II. <i>she/they<sub>du/pl</sub> saw us<sub>du</sub><sup>-</sup></i>	MM. <i>we<sub>pl</sub><sup>+</sup> laughed at them<sub>du/pl</sub></i>		
JJ. <i>I will shout at her</i>	NN. <i>we<sub>pl</sub><sup>-</sup> killed them<sub>du/pl</sub></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. <b>khamipaidhe</b>	43. <b>pata</b>	45. <b>khapaidhace</b>	48. <b>khangyo</b>
42. <b>khataphoda</b>	44. <b>tata</b>	46. <b>khatapaidhine</b>	49. <b>khata</b>
		47. <b>khakhanga</b>	50. <b>mita</b>
OO. <i>you<sub>sg</sub> came;</i> <i>she brought her</i>	TT. <i>she will look at her</i>		
PP. <i>she looked at me/us<sub>du/pl</sub><sup>±</sup></i>	UU. <i>she went</i>		
QQ. <i>you<sub>sg</sub> helped me/us<sub>du/pl</sub><sup>-</sup></i>	VV. <i>they<sub>pl</sub> will shout at me/us<sub>du/pl</sub><sup>±</sup></i>		
RR. <i>she shouted</i>	WW. <i>they<sub>pl</sub> came</i>		
SS. <i>you<sub>pl</sub> will shout at me/us<sub>du/pl</sub><sup>-</sup></i>	XX. <i>they<sub>du</sub> will shout at me/us<sub>du/pl</sub><sup>±</sup></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*. <sup>h</sup> indicates aspiration of the preceding consonant.  $i \approx oo$  in *goose* but with the lips unrounded.  $\eta = ng$  in *sing*.  $w = w$  in *watch*.  $y = y$  in *yacht*.  $ʔ$  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. <b>tisici</b>	4. <b>tatcuŋcuʔa</b>	7. <b>ittacu</b>	10. <b>ici</b>
2. <b>parayyaŋ</b>	5. <b>setniŋni</b>	8. <b>tiʔiyaŋa</b>	11. <b>patŋa</b>
3. <b>patna</b>	6. <b>tiʔittu</b>	9. <b>pattum</b>	12. <b>pattuŋ</b>
A. $we_{du/pl}^-$ were killing $you_{sg/du/pl}$ ; $we_{du/pl}^-$ are killing $you_{sg/du/pl}$		F. <i>I was shouting</i>	
B. $we_{pl}^+$ shouted at her; $we_{pl}^+$ will shout at her		G. $you_{sg}$ were laughing	
C. <i>I will shout</i>		H. $you_{sg}$ laughed at her; $you_{sg}$ will laugh at her	
D. <i>I shouted at <math>you_{sg}</math>;</i> <i>I will shout at <math>you_{sg}</math></i>		I. $we_{du}^-$ are bringing her	
E. <i>I shouted at her;</i> <i>I will shout at her</i>		J. $you_{du}$ will die	
		K. $we_{du}^+$ laughed at her	
		L. $we_{du}^+$ will laugh	

13. <b>nik<sup>h</sup>at</b>	16. <b>nik<sup>h</sup>attaci</b>	19. <b>ik<sup>h</sup>atta</b>	22. <b>nik<sup>h</sup>attin</b>
14. <b>ik<sup>h</sup>atcu</b>	17. <b>tik<sup>h</sup>atcu</b>	20. <b>tik<sup>h</sup>atnin</b>	23. <b>nik<sup>h</sup>attaciʔa</b>
15. <b>ik<sup>h</sup>attaŋciŋ</b>	18. <b>tik<sup>h</sup>atŋa</b>	21. <b>tik<sup>h</sup>attaŋniŋ</b>	24. <b>tik<sup>h</sup>atŋaŋniŋ</b>
M. $you_{sg/du/pl}$ took $us_{du/pl}^-$ ; $you_{sg/du/pl}$ will take $us_{du/pl}^-$		S. $you_{pl}$ will take me	
N. $they_{du}$ took me		T. $you_{sg}$ will take me	
O. $she/they_{du/pl}$ took $us_{du}^-$		U. $you_{du}$ will take her	
P. $they_{du}$ will take her		V. $she/they_{du/pl}$ will take $you_{sg}$	
Q. $she/they_{du/pl}$ took $us_{du}^+ / you_{du}$		W. $she/they_{du/pl}$ took $you_{pl}$ ; $she/they_{du/pl}$ will take $you_{pl}$	
R. $you_{pl}$ took me		X. $they_{pl}$ took her	

25. <b>iptuŋ</b>	28. <b>k<sup>h</sup>amyumcimka</b>	31. <b>tiwacuci</b>	34. <b>wattacuʔa</b>
26. <b>tiʔinacuci</b>	29. <b>itnanin</b>	32. <b>incuʔa</b>	35. <b>pim</b>
27. <b>waknaci</b>	30. <b>k<sup>h</sup>attu</b>	33. <b>tik<sup>h</sup>ansumcim</b>	36. <b>t<sup>h</sup>aktumka</b>
Y. <i>we<sub>pl</sub><sup>-</sup> brought her up; we<sub>pl</sub><sup>-</sup> will bring her up</i>		<i>you<sub>pl</sub> will send them<sub>du/pl</sub></i>	
Z. <i>I laughed at you<sub>pl</sub>; I will laugh at you<sub>pl</sub></i>		FF. <i>she took her; she will take her</i>	
AA. <i>you<sub>du</sub> sold them<sub>du/pl</sub></i>		GG. <i>we<sub>du</sub><sup>-</sup> will sell her</i>	
BB. <i>I made you<sub>du</sub> enter; I will make you<sub>du</sub> enter</i>		HH. <i>we<sub>pl</sub><sup>-</sup> were looking at them<sub>du/pl</sub>; we<sub>pl</sub><sup>-</sup> are looking at them<sub>du/pl</sub></i>	
CC. <i>you<sub>du</sub> will make them<sub>du/pl</sub> wear (it)</i>		II. <i>I put her to sleep (past); I will put her to sleep</i>	
DD. <i>we<sub>du</sub><sup>-</sup> made her wear (it)</i>		JJ. <i>we<sub>pl</sub><sup>+</sup> gave her; we<sub>pl</sub><sup>+</sup> will give her</i>	
EE. <i>you<sub>pl</sub> sent them<sub>du/pl</sub>;</i>			

37. <b>mik<sup>h</sup>iya</b>	40. <b>mik<sup>h</sup>iyana</b>	43. <b>imsinka</b>	46. <b>waruŋu</b>
38. <b>imca</b>	41. <b>k<sup>h</sup>in</b>	44. <b>k<sup>h</sup>atyaŋ</b>	47. <b>k<sup>h</sup>at</b>
39. <b>k<sup>h</sup>araŋaci</b>	42. <b>waŋaŋ</b>	45. <b>mik<sup>h</sup>iyaŋ</b>	48. <b>t<sup>h</sup>aŋŋa</b>
KK. <i>I entered</i>		QQ. <i>she is going</i>	
LL. <i>we<sub>du</sub><sup>+</sup> were going; they<sub>du</sub> were going</i>		RR. <i>we<sub>pl</sub><sup>+</sup> quarreled; we<sub>pl</sub><sup>+</sup> will quarrel</i>	
MM. <i>we<sub>pl</sub><sup>-</sup> slept; we<sub>pl</sub><sup>-</sup> will sleep</i>		SS. <i>we<sub>du</sub><sup>-</sup> will sleep</i>	
NN. <i>they<sub>pl</sub> quarreled</i>		TT. <i>they<sub>pl</sub> are quarreling</i>	
OO. <i>I will come up</i>		UU. <i>she will go</i>	
PP. <i>they<sub>pl</sub> 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<sub>du</sub> brought us<sub>pl</sub><sup>-</sup> over</i> | 19. <i>you<sub>pl</sub> threw (it) at them<sub>pl</sub></i>           |
| 2. <i>she met me</i>   | 20. <i>we<sub>pl</sub><sup>+</sup> warned them<sub>du</sub></i>       |
| 3. <i>you<sub>sg</sub> were sending me</i>                           | 21. <i>you<sub>pl</sub> are teasing her</i>                           |
| 4. <i>we<sub>du</sub><sup>-</sup> danced for them<sub>du</sub></i>   | 22. <i>they<sub>pl</sub> will embrace us<sub>pl</sub><sup>-</sup></i> |
| 5. <i>they<sub>du</sub> will leave (it) for you<sub>sg</sub></i>     | 23. <i>you<sub>du</sub> will disturb me</i>                           |
| 6. <i>I will pinch them<sub>du</sub></i>                             | 24. <i>they<sub>pl</sub> killed (it) for you<sub>sg</sub></i>         |
| 7. <i>we<sub>pl</sub><sup>-</sup> will say</i>                       | 25. <i>you<sub>pl</sub> begged us<sub>du</sub><sup>-</sup></i>        |
| 8. <i>you<sub>du</sub> combed me</i>                                 | 26. <i>she will leave (it) for you<sub>sg</sub></i>                   |
| 9. <i>you<sub>sg</sub> ground it</i>                                 | 27. <i>you<sub>du</sub> begged us<sub>du</sub><sup>-</sup></i>        |
| 10. <i>they<sub>pl</sub> will help them<sub>du</sub></i>             | 28. <i>she brought her down</i>                                       |
| 11. <i>we<sub>du</sub><sup>-</sup> are calling them<sub>pl</sub></i> | 29. <i>they<sub>du</sub> killed (it) for you<sub>sg</sub></i>         |
| 12. <i>she will kick me</i>  | 30. <i>we<sub>du</sub><sup>+</sup> will sweep them<sub>pl</sub></i>   |
| 13. <i>she swept them<sub>pl</sub></i>                               | 31. <i>we<sub>pl</sub><sup>+</sup> will say</i>                       |
| 14. <i>she is pinching us<sub>du</sub><sup>+</sup></i>               | 32. <i>I will grind them<sub>pl</sub></i>                             |
| 15. <i>she will trample you<sub>pl</sub></i>                         | 33. <i>she brought us<sub>pl</sub><sup>-</sup> over</i>               |
| 16. <i>she will embrace us<sub>pl</sub><sup>-</sup></i>              | 34. <i>we<sub>pl</sub><sup>+</sup> will throw it</i>                  |
| 17. <i>you<sub>sg</sub> helped them<sub>du</sub></i>                 | 35. <i>she will put it</i>  |
| 18. <i>they<sub>pl</sub> will trample you<sub>pl</sub></i>           | 36. <i>you<sub>sg</sub> kept them<sub>pl</sub></i>                    |

Camling (North-West Dialect)
------------------------------

- |              |                |                |
|--------------|----------------|----------------|
| A. bikucyu   | F. pakyo       | K. takhlakine  |
| B. chikôicôî | G. paphlodocyo | L. tangaide    |
| C. horsumne  | H. ringike     | M. tangakacka  |
| D. ityu      | I. tahordumcum | N. tangasyucyu |
| E. pabaidika | J. taiku       | O. taseida     |

**Bantawa**

AA. bikcuci	FF. nib <sup>h</sup> emsinka	KK. tik <sup>h</sup> ansanyaŋ
BB. butcuŋcuciʔa	GG. niç <sup>h</sup> ikciŋci	LL. tinetŋaŋciŋ
CC. ceŋsumcim	HH. t <sup>h</sup> optacuciʔa	MM. tip <sup>h</sup> asuci
DD. id <sup>h</sup> apɲa	II. tik <sup>h</sup> ittanɲi	NN. wintuŋciŋ
EE. ituwaŋ	JJ. ticurumyum	OO. yiŋin

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

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

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

- |               |               |              |              |
|---------------|---------------|--------------|--------------|
| i. ticattanɲi | iii. tidunyaŋ | v. taciŋciʔa | vii. paraŋa  |
| ii. niseran   | iv. piwacu    | vi. nitaraci | viii. iptuci |

(g) Translate to Bantawa:

- |   |  |
|---|--|
| i. <i>you<sub>du</sub> are entering</i>             | iii. <i>you<sub>sg</sub> are selling her</i>               |
| ii. <i>I was putting them<sub>pl</sub> to sleep</i> | iv. <i>they<sub>du</sub> are combing them<sub>du</sub></i> |

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

- |   |   |
|---|---|
| i. <i>we<sub>pl</sub><sup>-</sup> will bring her</i>          | vii. <i>we<sub>du</sub><sup>+</sup> went</i>                |
| ii. <i>she gave us<sub>du</sub><sup>-</sup></i>               | viii. <i>you<sub>pl</sub> will shout at me</i>              |
| iii. <i>we<sub>du</sub><sup>-</sup> will come</i>             | ix. <i>they<sub>du</sub> will laugh at you<sub>du</sub></i> |
| iv. <i>they<sub>du</sub> will comb you<sub>pl</sub></i>       | x. <i>they<sub>pl</sub> died</i>                            |
| v. <i>we<sub>du</sub><sup>-</sup> killed you<sub>sg</sub></i> | xi. <i>she helped her</i>                                   |
| vi. <i>we<sub>pl</sub><sup>-</sup> quarreled</i>              | xii. <i>you<sub>pl</sub> will kill her</i>                  |

—Samuel Ahmed

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**English text:** Samuel Ahmed.

Good luck!

$$\text{en}(A)$$

# Twenty-second International Linguistics Olympiad

Taipei (Taiwan), July 20–27, 2025

# 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)

[illegible]

## Part II.

(c)

[illegible]



### 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 — \_\_\_\_\_
- ii. talosumcumne — \_\_\_\_\_
- iii. rinaci — \_\_\_\_\_
- iv. tadungdi — \_\_\_\_\_
- v. khangucyu — \_\_\_\_\_
- vi. tadungace — \_\_\_\_\_

(f)

- i. ticattançin — \_\_\_\_\_
- ii. niseran — \_\_\_\_\_
- iii. tidunyan — \_\_\_\_\_
- iv. piwacu — \_\_\_\_\_
- v. taciñci?a — \_\_\_\_\_
- vi. nitaraci — \_\_\_\_\_
- vii. paraña — \_\_\_\_\_
- viii. iptuci — \_\_\_\_\_

(g)

- i. *you<sub>du</sub> are entering* — \_\_\_\_\_
- ii. *I was putting them<sub>pl</sub> to sleep* — \_\_\_\_\_
- iii. *you<sub>sg</sub> are selling her* — \_\_\_\_\_
- iv. *they<sub>du</sub> are combing them<sub>du</sub>* — \_\_\_\_\_

(h)

	Bantawa	Camling
i. <i>we<sub>pl</sub><sup>-</sup> will bring her</i>		
ii. <i>she gave us<sub>du</sub><sup>-</sup></i>		
iii. <i>we<sub>du</sub><sup>-</sup> will come</i>		
iv. <i>they<sub>du</sub> will comb you<sub>pl</sub></i>		
v. <i>we<sub>du</sub><sup>-</sup> killed you<sub>sg</sub></i>		
vi. <i>we<sub>pl</sub><sup>-</sup> quarreled</i>		
vii. <i>we<sub>du</sub><sup>+</sup> went</i>		
viii. <i>you<sub>pl</sub> will shout at me</i>		
ix. <i>they<sub>du</sub> will laugh at you<sub>du</sub></i>		
x. <i>they<sub>pl</sub> died</i>		
xi. <i>she helped her</i>		
xii. <i>you<sub>pl</sub> will kill her</i>		