

# **International Linguistics Challenge IYMC 2025 Submission**

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## Problem A: Solutions

Audio 001:

/ʃɪnu/

“to sing”

Audio 002:

/nara/

“river”

Audio 003:

/blutʃon/

“to carry”

Audio 004:

/fɪntʃ/

“long”

Audio 005:

/ɪle/

“tree”

Audio 006:

/elom/

“cold” (see *Remark 1* below)

Audio 007:

/burak/

“to sleep”

Audio 008:

/ɾeso/

“house”

Audio 009:

/brabɪk/

“to break”

Audio 010:

/lasaon/

“bright” (see *Remark 2* below)

*Remark 1: The sound is /yelom/, but the IPA chart does not have a /y/ sound.*

*Remark 2: The nasal /n/ is soft at the end, but the IPA chart does not have that option.*

## Problem B: Solutions

Audio 011:

/fɪntʃ/ - /nara/ - /mika/ - /elom/ - /tʃon/ - /blutʃon/

“long” - “river” - “small” - “cold” - “stone” - “carry”

Audio 012:

/mika/ - /lasaon/ - /kosak/ - /ʃɪnu/

“small” - “bright” - “bird” - “sings”

*Remark 3: /kosak/ is identified as a word for “bird”.*

Audio 013:

/gog/ - /nimut/ - /ile/ - /lorai/ - /brabɪk/

“tall” - “child” - “tree” - “easily” - “breaks”

*Remark 4: /gog/, /nimut/ and /lorai/ are identified as words for “tall”, “child” and “easily”, respectively.*

### Problem C (a): Solutions

**(a) What is the basic word order of subjects, objects and verbs in Language X? Give a short explanation, using examples from the dataset to support your answer.**

Examining (14)-(17):

(14) kanabi felu	(“ The women dance.”)
(15) kanabi telum feru	(“ The women see the boy.”)
(16) lomu telum huni	(“The dog chases the boy.”)
(17) telumi lomu feru	(“The boys see the dog.”)

From the common words in 14 and 15, “kanabi” means “the women”. The common words in (15) and (16) show that “telum” means “the boy”. Using these meanings in (15), the subject (S) that does the action is “kanabi” and the object (O) that receives the action is “telum”. The remaining word “feru” is the verb (V) that indicates the action, “to see”. The verb also appears in (17), (20) and (21), and in all four sentences, the verb appears at the end. The order of the subject and object in (15) and (17) suggests that the word order is subject, object, and verb.

(14) is in agreement with SOV as the object is absent. (16) is in agreement with SOV, assuming that the subject “lomu” means “the dog”. This is confirmed in (17) where “dog” is the object and “boy” is the subject. “Lomu” appears as the middle word after the subject “telumi” (“the boys”), a plural form of “telum”. The plural form “lomun” is the subject in (20) and (21) and it is the first word in both sentences.

In conclusion, Language X follows subject, object, and verb (SOV) word order.

### Problem C (b)-(c): Solution

**(b) How are plural nouns formed in Language X? Give a short explanation, using examples from the dataset to support your answer.**

The singular-plural forms that appear in (14)-(21) are as follows:

#### Nouns

kanab - kanabi	(“woman - women”)
telum - telumi	(“boy - boys”)
lomu - lomun	(“dog - dogs”)
pano - panon	(“mountain - mountains”)
kuran	(“stars”)

#### Verbs

huni	(“chases”)
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The first two nouns end in a consonant, and their plural forms are created by adding an “i” to the word. The next two nouns end on vowels, and their plural forms are created by adding an “n” to the word. The word plural “kuran” for “stars” also ends with “n” after a vowel, implying “kura” is means the singular “star”.

The plural verb “huni” ends with “i” after a consonant, although there is not enough data to generalize this for verbs. So, the only conclusion we can make is for plural forms of nouns.

With these trends, the two rules for creating plural forms:

Rule 1: If a singular nouns ends in a consonant, add an “i” at the end of the word.

Rule 2: If a singular noun ends in a vowel, add an “n” at the end of the word.

**(c) Translate the sentence below into Language X.**

**“The mountains study the women and the dogs.”**

The SOV word order and the plural nouns “panon” (“mountains”), women (“kanabi”) and “dogs” (“lomun”). (18) gives us the verb “baraa” for “studies”. Also, the object is a compound object and (21) tells us to use an “o” as a coordinating conjunction.

With these rules, the translation is: panon kanabi o lomun baraa

*Remark 5: The plural form of the verb is used here, although the translation requires a singular form, assuming Language X follows English rules for subject-verb agreement. However, the rule for plural forms of verbs is unclear.*

#### Problem D: Solution

**(a) Describe the verbal agreement system in Language X. Use examples from the dataset to support your answer.**

Examining (22)-(25):

(22) kanab felu	(“ The woman dances.”)
(23) telumi lomun ferua	(“ The boys see the dogs.”)
(24) kanab kura bara	(“The woman studies the star.”)
(25) lomu kuran hunia	(“The dog chases the stars.”)

In both (14) and (22), the object is absent in both. The subject changes from plural to singular (“kanabi”→“kanab”), but the verb remains the same. The observations imply there is no subject-verb agreement requirement, leading to the rule:

Rule 3: The subject has no effect on the verb form

Comparing (17) and (23) gives us information on object-verb agreement as the plural subject is the same (“telumi”). When the object changes from singular to plural based on Rule 1 (“lomu”→“lomun”), the verb changes its form by the addition of an “a” at its end (“feru”→“ferua”). The same rule is observed on comparing (18) and (24), where changing the object to a singular form (“kuran”→“kura”) changes the verb form by deleting an “a” at the end (“baraa”→“bara”). Comparing (16) and (25) confirms the conclusion as the verb changes its form (“huni”→“hunia”) when a singular object is changed to another plural object (“telum”→“kuran”). The observations leads to a rule requiring object-verb agreement:

Rule 4: Singular to plural change in object form leads to a change the verb form involving addition of an “a” at the end.

*Remark 6: The addition of an “a” likely changes the verb to a plural form if the verbs in Language X are defined as singular. The exact opposite would be true if the verbs are by definition plural.*

**(b) Translate the sentence below into Language X. Explain plural noun formation and verbal agreement morphology, if any, in the sentence.**  
**“The bird sees the river and the trees.”**

From Problem B, the “kosak” means “birds” and it is the subject. Audio 002 translates “nara” to “river”. Audio 005 translates “ile” to “tree” and using Rule 2, its plural form is “ilen”. From (15), the verb “feru” translates to “see”. By Rule 4, since the object is compound and plural, the verb form “ferua” must be used.

The translation becomes: “kosak nara o ilen ferua.”

### Problem E: Solution

**(a) Describe the agreement system of Dialect II. Identify one similarity and one difference between the agreement systems of Dialect I and II. Use examples from the dataset to support your answer.**

Examining (26)-(29):

(26) kanabi ferua	(" The woman see.")
(27) kanabi telum feru	(" The women see the boy.")
(28) panon ferua	("The mountains see.")
(29) lomu panon ferua	("The dog sees the mountains.")

Comparing (26) with (14) and (17), in Dialect II the verb form changes to one with an added "a" ("feru" → "ferua") when the subject is plural ("kanabi") and there is no object. The same pattern is observed in (28). This contradicts Rule 3 of Dialect I. Therefore, one difference between Dialects I and II is that with sentences with no objects, the subject form affects the verb form in Dialect II and requires subject-verb agreement.

However, in (27) when there is a plural subject and a singular object, the verb changes back to its definitional form as in Dialect I. Similarly, in when (29) there is a singular subject and a plural object, the verb form has an added "a". Both sentences are in agreement with Rule 4 of Dialect I. Therefore, in sentences with both subjects and objects, Dialects I and II are in agreement.

**(b) Based on the agreement rules you have identified for Dialect II in Problem E Part (a), what predictions can you make about the equivalent of (31) in Dialect II?**

Examining (30) and (31):

(30) kanabi felu	"The women dance."
(31) felu	"He/she/they dance."

In sentences like (31) where there is no object, Dialect II would require subject-verb agreement. In the absence of subject, the pronominal subject can be singular or plural. For more general case, Dialect II would use felua. In contexts where the pronominal subject is singular, pronominal subject "felu" may be used to ensure subject-verb agreement, although we don't have enough information to make that conclusion.