

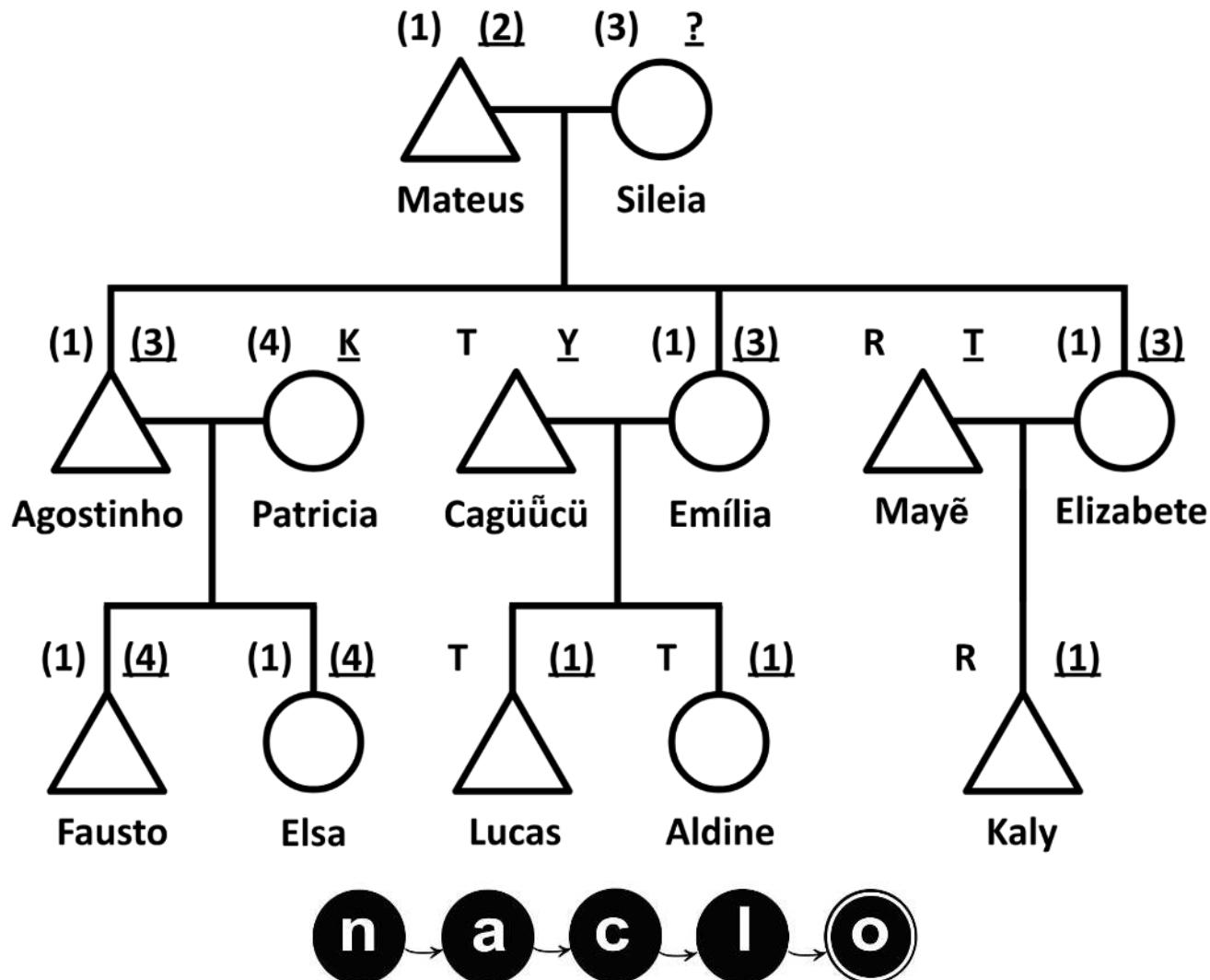
(O) I Speak, Therefore I Am (1/4) [10 Points]

Along the Vaupés River in Brazil and Colombia today are 17 indigenous groups whose languages belong to the Eastern Tukanoan language family, including Kotiria, Tukano, and Tuyuka. The exception is Tariana, which is part of the Arawakan language family. There are around 30,000 people belonging to these groups, but less than half still speak their ethnic language. In this problem, all speakers will only speak their ethnic language.

The Vaupés groups are patrilineal, so a child's native language is their father's native language, which thereby becomes known as their patrilect. Their mother's native language becomes their matrilect.

Furthermore, the majority of the Vaupés groups practice a marriage system known as exogamy, whereby marriages occur between individuals who speak different patrilects.

You are given a family tree showing the patrilect and matrilect of some family members and their relationship to each other. Triangles represent males, and circles represent females. A horizontal line between two people represents marriage, and a vertical line represents offspring. For example, Mateus and Sileia's children are Agostinho, Emilia, and Elizabete. For each family member, their patrilect is indicated on the left, while their matrilect is indicated on the right and underlined. Note that **K** is Kotiria, **R** is Tariana, **T** is Tukano, and **Y** is Tuyuka.



(O) I Speak, Therefore I Am (2/4)

In this problem, all speech is given in a speaker's patrilect. You are given five statements along with their English translations. Note that **i** and **u** are vowels halfway between pizza and food. The tilde **ó** indicates that air is escaping through the nose. The accents **ó** and **ô** both mark stress. In the English translations, note that 'speak' refers solely to the patrilect, while 'understand' refers to the matrilect.¹

Speaker	Language	Statement	English Translation
Patricia	Tuyuka	Y<u>uu</u> Docapúaraye wedea	<i>I speak Tuyuka</i>
Aldine	Tukano	Yí'í pako Akotí yee uumí	<i>My mom speaks Kotiria</i>
Agostinho	Kotiria	Y<u>u</u> Phaana th<u>u</u>'oeraha	<i>I do not understand Tariana</i>
Emilia	Kotiria	Y<u>u</u> phukoro Dahsea th<u>u</u>'oerara	<i>My dad does not understand Tukano</i>

O1. In the spaces below, fill in the gaps (1) - (4) on the family tree with the correct languages using the above information. Each language is used exactly once.

(1)	<input type="text"/>	(2)	<input type="text"/>
(3)	<input type="text"/>	(4)	<input type="text"/>

You are given seven more statements, one from each of Cagüücü, Mayë, Elizabete, Fausto, Elsa, Lucas, and Kaly in their patrilects. However, you are not told which speaker gives each statement, and their English translations are in scrambled order.

- | <u>Kotiria, Tariana, Tukano, or Tuyuka</u> | <u>English</u> |
|--|----------------------------------|
| A. Y<u>u</u> phukoro Dahseakoro hira | i. <i>I speak Kotiria</i> |
| B. Nohá Taliá yarupe nu-tsaápeni-noka | ii. <i>I speak Tariana</i> |
| C. Yí'í pako Di'í yee uumí | iii. <i>I speak Tukano</i> |
| D. Y<u>u</u> Kotiriakoro hiha | iv. <i>I understand Tuyuka</i> |
| E. Y<u>u</u> Tuyuka th<u>u</u>'oha | v. <i>My mom speaks Kotiria</i> |
| F. Yí'í Ye'pâ-masa yee uúkû | vi. <i>My mom speaks Tukano</i> |
| G. Nohádoa Panumápe yarupe du-tsaápeni-noka | vii. <i>My mom speaks Tuyuka</i> |

¹ In Kotiria, to "speak" is to "be"; "I am Kotiria" would be a closer translation than "I speak Kotiria". If your father is Kotiria you cannot say "I speak Tukano", but you could say "I understand Tukano".



(O) I Speak, Therefore I Am (3/4)

O2. Match each statement at the bottom of the previous page to its English translation. Write one number (from i to vii) per box:

A.

B.

C.

D.

E.

F.

G.

O3. While matching the statements to their speakers, you find that you are stuck. Luckily, Fausto's twin kids Ricardo and María are reading over your shoulder. María reads aloud, **Yʉ Kotiriakoro hiha**. Her brother Ricardo repeats after her, but María laughs and tells him he can't say that. Ricardo agrees and corrects himself, **Yʉ Kotiriro hiha**. Suddenly, you have an epiphany and realize how to complete the task. Write one letter (A-G) per box to match the statements to their speakers:

Cagüūcü

Mayẽ

Elizabete

Fausto

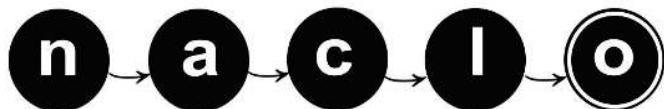
Elsa

Lucas

Kaly

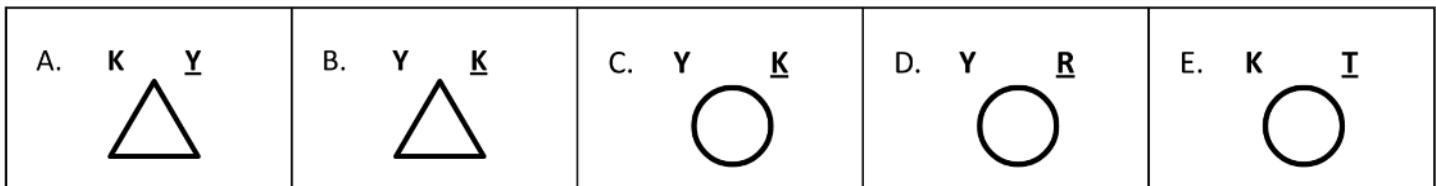
O4. Ricardo needs your help saying, "My mom does not speak Tuyuka." Write the corresponding sentence in Ricardo's patrilect:

O5. There are several ways to convey the same information. For example, "I speak Kotiria" and "My dad speaks Kotiria" convey the same information because a speaker's patrilect must be the same as their father's patrilect. Give a sentence in Ricardo's patrilect that conveys the same information as "My mom does not speak Tuyuka":



(O) I Speak, Therefore I Am (4/4)

Recall that it is generally forbidden to marry a partner who speaks the same patrilect. All of the marriages in this problem conform to this rule. However, there is another condition required for a marriage to be considered ideal. All of the marriages are also ideal, meaning that they meet this condition, except for the marriage between Mayẽ and Elizabete. Fausto, Elsa, Lucas, Aldine, and Kaly's spouses have challenged you by lining up in scrambled order as shown below. Each of them also tells you their patrilect and matrilect. Assuming that all marriages in this problem take place between two people of the opposite sex, there is exactly one way to correctly match each of the speakers to their spouse.



O6. Identify the correct correspondences by writing one letter (A-E) per box:

Fausto

Elsa

Lucas

Aldine

Kaly

O7. You are told that the marriage between Mateus and Sileia is ideal. Identify Sileia's matrilineal language, indicated by a ? on the family chart:

