



Eleventh Taiwan Olympiad in Linguistics Round 1

27 February 2026

- Listen carefully to the invigilators and follow their instructions.
- The contest lasts **two and a half** 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.
 - 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 sentences in Eastern Arrernte and their English translations:

- | | |
|---|---|
| 1. aherre apetyeme | <i>The kangaroo comes.</i> |
| 2. aherrele arlewatyerre atweke | <i>The kangaroo hit the goanna.</i> |
| 3. akngwelyele arleye aretyenhe | <i>The dog will look at the emu.</i> |
| 4. ampele intelyapelyape areke | <i>The child looked at the butterfly.</i> |
| 5. arleye alkereke-ireme | <i>The emu flies.</i> |
| 6. artwele ampe akaltyele-anteme | <i>The man teaches the child.</i> |
| 7. marle apetyetyenhe | <i>The girl will come.</i> |
| 8. irretye alkereke-ireke | <i>The wedge-tailed eagle flew.</i> |

(a) Translate into English:

9. **ampele irretye areme**
10. **arleye apetyeke**

(b) Translate into Eastern Arrernte:

11. *The goanna hits the girl.*
12. *The butterfly will fly.*
13. *The girl will teach the dog.*

(c) Here are some Eastern Arrernte words and their English translations:

artewe	apere	arlkweke	akarelheme	untheme
<i>bush turkey</i>	<i>river red gum tree</i>	<i>ate</i>	<i>wait</i>	<i>look for</i>

Translate into Eastern Arrernte:

14. *The man will wait.*
15. *The butterfly looked for the river red gum tree.*
16. *The bush turkey eats the wedge-tailed eagle.*

Eastern Arrernte belongs to the Arandic branch of the Parma–Nyungan family. It is spoken by 1,910 people in and around Alice Springs in central Australia.

kngw, kw, lh, ly, mp, nh, nt, rl, rr, rt, rtw, th, tw and **ty** are consonants.

Kangaroo, emu, wedge-tailed eagle, goanna, and bush turkey are native Australian animals. Red river gum tree is a native Australian tree.

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

- | | |
|-------------------------------|------------------------------|
| 1. kæ:ŋ ka ri: | A. <i>red bean</i> |
| 2. kæ:ŋ khiaw wa:n | B. <i>orange color</i> |
| 3. kæ:ŋ som | C. <i>citrus</i> |
| 4. nam phrik | D. <i>white color</i> |
| 5. nam wa:n | E. <i>white chocolate</i> |
| 6. si: kha:w | F. <i>yellow curry</i> |
| 7. si: som | G. <i>green curry</i> |
| 8. som | H. <i>sweetened beverage</i> |
| 9. som khiaw wa:n | I. <i>green tangerine</i> |
| 10. thua: dæ:ŋ | J. <i>chili sauce</i> |
| 11. wai chɔ:k ko: læ:t | K. <i>sour curry</i> |

(a) Determine the correct correspondences.

(b) Translate into English:

- | | |
|-----------------|-----------------------|
| 12. wa:n | 13. phrik dæ:ŋ |
|-----------------|-----------------------|

(c) Translate into Thai:

- | | |
|-----------------------|--|
| 14. <i>mung bean</i> | 15. <i>orange juice</i> |
| 16. <i>watercolor</i> | 17. <i>white chocolate (alternative)</i> |

Thai (or Central Thai) belongs to the Tai–Kadai branch of the Tai–Kadai language family. It is spoken as the first language by approximately 27,000,000 people, mainly located in central Thailand. Another 44,000,000 people speak it as a second language. Tone is omitted in this problem.

ch \approx *ch* in *church*. **kh** = *c* in *cups*. **ph** = *p* in *paste*. The mark : denotes long vowels.

Yellow curry, green curry, and sour curry are Thai dishes. Yellow curry, similar to regular curry, has an Indian flavor and is made with spices such as cumin, coriander, and turmeric. Green curry is made with coconut milk as a base and is cooked with various spices. Sour curry is usually made from a base called **nam phrik kæ:ŋ som**, which contains shrimp paste, chili, shallots, etc., and tamarind is added to enhance the sourness. Green tangerine is a common type of tangerine in Thailand, originally from China. When ripe, the peel is still greenish, and the fruit has a sweet taste. Watercolor is a painting method, and also refers to the water-based paints used in this method.

Here are some Portuguese words and their European (EP) and Brazilian (BP) pronunciation in IPA, along with their English translation:

Portuguese	EP pronunciation	BP pronunciation	English
dialético	di.e'le.ti.ku	dʒi.a'le.tʃi.ku	<i>dialectal</i>
déficé	'dɛ.fi.sɨ	'dɛ.fi.si	<i>deficit</i>
elefante	i.li'fɛ.ti	e.le'fɛ.tʃi	<i>elephant</i>
estudo	ɨ'stu.du	es'tu.du	<i>study</i>
janela	ʒɐ'ne.lɐ	ʒa'ne.le	<i>window</i>
Letonês	li.tu'neʃ	le.to'nes	<i>Latvian (language)</i>
metodologia	mi.tu.du.lu'ʒi.e	me.to.do.lo'ʒi.e	<i>methodology</i>
pêssego	'pe.si.gu	'pe.se.gu	<i>peach</i>
sete	'sɛ.ti	'sɛ.tʃi	<i>seven</i>
esôfago		e.zo.fa.gu (1)	<i>esophagus</i>
diplomata		dʒi.plo.ma.te (2)	<i>diplomat</i>
fotografia		fo.to.gra.fi.e (3)	<i>photograph</i>
ótimo		ɔ.tʃi.mu (4)	<i>great; excellent</i>
bebê	b_'b_ (5)	b_'b_ (6)	<i>baby</i>
energético	_n_r'ʒ_.i.ku (7)	_n_ʁ'ʒ_.i.ku (8)	<i>energetic</i>
taverna	_ɐ'v_r.ne (9)	_a'v_ʁ.ne (10)	<i>tavern</i>
verdade	v_r'_a._ (11)	v_ʁ'_a._ (12)	<i>truth</i>

(a) Indicate the stress in BP pronunciations (1–4). The shaded cells do not need to be filled.

(b) Fill in the gaps (5–12).

Portuguese belongs to the Romance branch of the Indo-European language family. It is spoken by approximately 267,000,000 people worldwide, not only in Portugal but also in the former colonies of the Portuguese Empire. Portugal and Brazil are two countries where the majority of speakers are native Portuguese speakers. The two Portuguese variants are called European Portuguese and Brazilian Portuguese, respectively.

In IPA, the ~ on a vowel indicates nasalization, . indicates a syllable boundary, and ' indicates that the following syllable is the stressed syllable of the word, and also serves to separate syllables.

Here are some sentences in Karimata Miyako and their English translations:

- | | |
|--------------------------------------|--|
| 1. us̄inu mmmu miin | <i>Cows do not look at sweet potatoes.</i> |
| 2. yaanu puduu miitai | <i>Houses saw people.</i> |
| 3. pavnu dz̄iyu kakan | <i>Snakes do not write words.</i> |
| 4. dus̄inu tigabīu kakitai | <i>Friends wrote letters.</i> |
| 5. maīnu innu kakaddan | <i>Rice did not write dogs.</i> |
| 6. dz̄īnu budutai | <i>Words danced.</i> |
| 7. pudunu dz̄innu c̄ifitai | <i>People made money.</i> |
| 8. dz̄innu kincikuu c̄ifaddan | <i>Money did not make wallets.</i> |
| 9. c̄ikuinu tuban | <i>Desks do not fly.</i> |
| 10. takunu maīu pusitai | <i>Octopi dried rice.</i> |

(a) Translate into English:

11. **kincikunu bududdan**
12. **takunu c̄ikuiyu c̄ifan**
13. **tigabīnu tubitai**

(b) Translate into Karimata Miyako:

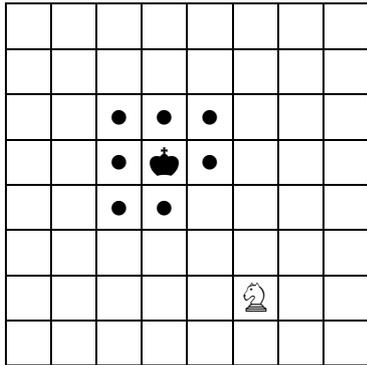
14. *Dogs did not look at friends.*
15. *Sweet potatoes do not dry houses.*
16. *Cows did not dry snakes.*

Miyako belongs to the Ryukyu branch of the Japanese-Ryukyu language family. The Karimata dialect is spoken by about 200 people in the Karimata area of Miyako Island.

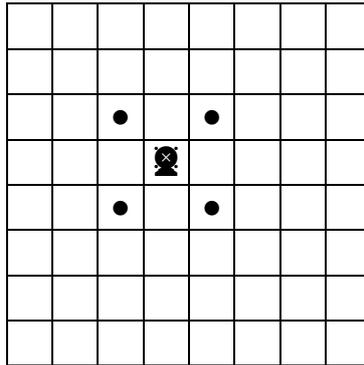
ī ≈ Mandarin *i* in *sī* ‘silk’. **y** ≈ *y* in *yes*. **c** ≈ *ts* in *tsunami* or *ch* in *chair*. **dz** = voiced **c**.

In this problem, *letters* refer to written messages from one person to another.

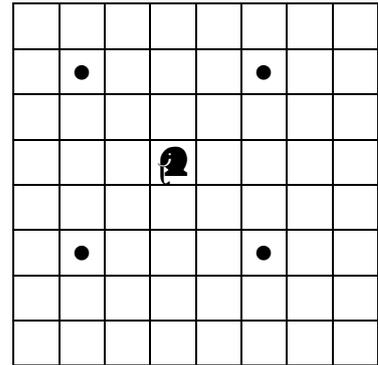
Shatranj is an ancient board game for two players, red (white in this problem) and black, played on a square board consisting of 8×8 grids. The pieces include the *King*, *Counselor*, *Elephant*, *Horse*, *Rook*, and *Soldier*. Red moves first, after which players alternate turns. One piece is moved per turn. A piece can only move to an unoccupied square, or to a square with opponent's piece to capture it (remove it from the board). One piece per square at a time. The movement rules are as follows:



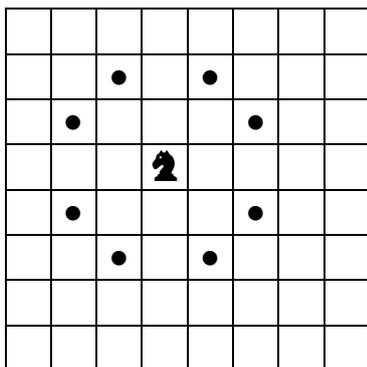
The *King* moves one square at a time into any of the 8 surrounding square, except those that are under attack. It captures as it moves.



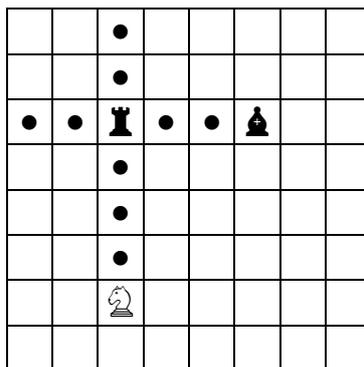
The *Counselor* moves one square diagonally at a time, and captures as he moves.



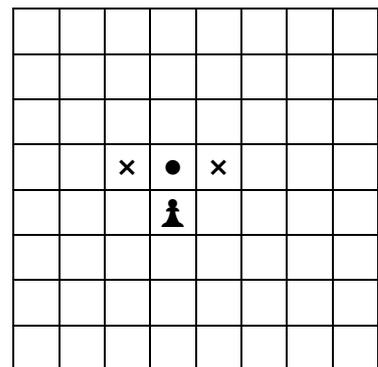
The *Elephant* moves 2 squares diagonally at a time, regardless of whether the diagonally adjacent square is occupied. It captures as it moves.



The *Horse* moves any number of squares along a rank or file at a time, but it cannot jump over any other pieces. It captures as it moves.



The *Rook* moves one square along a rank or file and then one square diagonally regardless of whether the square it passes through is occupied. It captures as it moves.

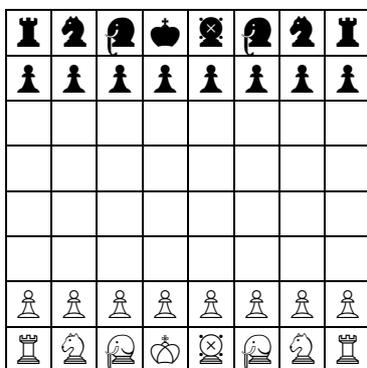


The *Soldier* moves one square forward at a time. It only captures pieces diagonally in front of it by moving there. When it reaches the bottom line, it is immediately promoted to a *Counselor*.

When a *King* is being attacked, the player who attacks should call **shah** to warn the opponent. The attacked player must immediately try to remove the threat to the *King*—either by capturing the attacking piece, moving the *King* to another square, or blocking the attacking piece with another of their own pieces. If the threat cannot be removed, the *King* is said to be **shah mat**, the player who attacks wins and the other loses.

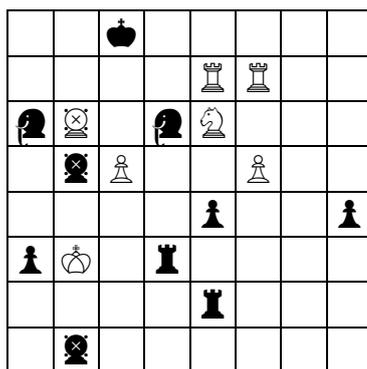
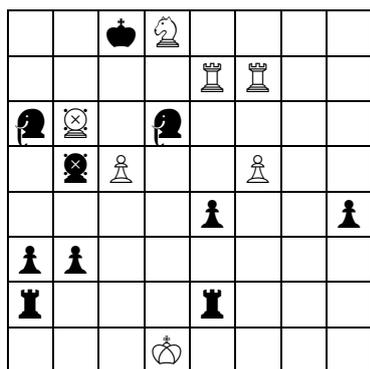
Moving is compulsory. Rules not mentioned are omitted.

- (a) The following is the initial position of a shatranj game, along with several moves by both players, recorded in modern algebraic notation (Romanized modern Persian). The red *King* is positioned on **d1**. Draw the shatranj diagram after all the given moves have been made.



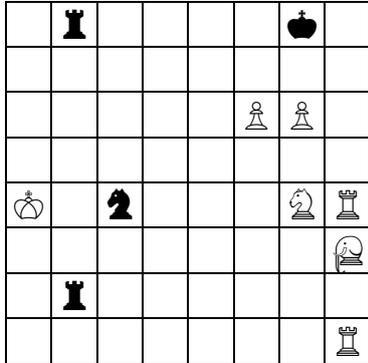
- d3** **a6**
- e3** **a5**
- Fh3** **Ra6**
- Ad2** **Rg6**
- Agf3** **R×g2**
- Ad4** **d6**
- A2f3** **Vd7**

- (b) The following is a record of the changes in a shatranj game, as well as several moves by both players, in modern algebraic notation (Romanized modern Persian). Fill in the blank.



- Ae6** _____
- Šc1** _____
- Šb1** **Rd1+**
- _____ **b1V+**
- _____ **Rd3#**
- 0-1**

- (c) The following is a shatranj game and a description of its subsequent development in modern Persian. Transcribe the described moves using modern algebraic notation (Romanized modern Persian).



Gharmaz rakh khod ra bah h8 monteghal kard ve shah siah ra majbor bah garaftan an kard. Seps fil gharmaz bah f5 harkat kard ve yek “kish keshof shodeh” tashkil dad. Shah siah bah g8 bazgasht. Dar inja harkat darkhshan fara mirasad—gharmaz دوباره Rh8+ ra enjam dad. Pes az inkeh peyadeh bah g7 kish dad, siah charecyi jaz harkat shah khod yek ghodam bah samat chap nadasht. Dar neyayat, asb gharmaz jelo amad. Kish ve mat, ya bah estala “shah mat”. Gharmaz barandeh shod.

Shatranj was introduced to the Sasanian Empire from India in the 6th century. It has been passed down for over a thousand years and has also spread to Europe. It is the predecessor of modern chess.

Algebraic notation is a method of recording moves in shatranj and chess, with the earliest documented record dating back to 988 AD.

Knowledge of Old Persian or Modern Persian is not required for solving this problem.

Editors: Kai-Chen Chang, Li-Bang Chen, Jen-Chien Hou, Samantha Kao, Hsiang-Yu Lei (editor-in-chief).

Good luck!