

# Open Round of the Ninth China National Linguistics Olympiad

April 25, 2020

## Problems

**Problem 1 (20 points).** Here are some words and word combinations in Etruscan written in the Old Italic script and in the Latin script and their English translations:

|                |                               |                                    |
|----------------|-------------------------------|------------------------------------|
| JAṂATḂ·ITA     | <u>1</u>                      | <i>the mother of the sanctuary</i> |
| A8XṂYJY1·4AM17 | <u>2</u>                      | <i>thirteen stars</i>              |
| IJ3Ḃ           | <u>3</u>                      | <i>twice</i>                       |
| J18A·ṂY4ḂAI    | <u>4</u>                      | <i>twenty years</i>                |
| JAITA·A8XṂYJY1 | <u>5</u>                      | <u>6</u>                           |
| JAIṂT·JIMY     | <u>7</u>                      | <u>8</u>                           |
| <u>9</u>       | <b>ciz</b>                    | <i>three times</i>                 |
| <u>10</u>      | <b>eslem zathrum avil</b>     | <i>eighteen years</i>              |
| <u>11</u>      | <b>tmia atial</b>             | <i>the temple of the mother</i>    |
| <u>12</u>      | <b>ushil zilacal</b>          | <i>the sun of the chief</i>        |
| <u>13</u>      | <b>ciem zathrum pulumchva</b> | <u>14</u>                          |
| <u>15</u>      | <b>etan zilacal</b>           | <u>16</u>                          |
| <u>17</u>      | <u>18</u>                     | <i>ten years</i>                   |
| <u>19</u>      | <u>20</u>                     | <i>the sanctuary of the temple</i> |

Fill in the gaps among them.

⚠ Etruscan is a language isolate. It was spoken in Etruria (modern Central Italy) around 2,000 years ago.

1 ≠ 1. **ch**, **sh**, and **th** are consonants.

—Yuyang Liu

**Problem 2 (20 points).** Here are some sentences in Ancient Greek and their English translations:

**Hē gynē ton nautēn ēnenke.**

*The woman brought the sailor.*

**Hē tou sophou gnōsis tēn tēs elpidos basileian heilkyse.**

*The knowledge of the sage hurt the kingdom of the hope.*

**Hē tou teknou mētēr ton tēs basileias basilea etarakse.**

*The mother of the child disturbed the king of the kingdom.*

**Ho anēr tēn tou basileōs mētera ēnenke.**

*The man brought the mother of the king.*

**Ho emporos to tēs elpidos noēma heure.**

*The merchant found the meaning of the hope.*

**Ho nautēs to tōn gynaikōn dōron epoiēse.**

*The sailor made the gift of the women.*

**Ho tēs Hellados stratēgos tēn tou Sōkratous polin elabe.**

*The general of Greece plundered the city-state of Socrates.*

**Ho tēs poleōs basileus to tēs mēteros dōron elabe.**

*The king of the city-state plundered the gift of the mother.*

**Ho tōn Athēnōn kritēs ton Sōkratēn apekteine.**

*The judge of Athens killed Socrates.*

**To tēs gynaikos teknon to tēs gnōseōs noēma emathe.**

*The child of the woman knew the meaning of the knowledge.*

(a) Translate into English:

1. **Hē tou nautou gnōsis to tou stratēgou teknon heilkyse.**
2. **Ho sophos tēn tou emporou elpida apekteine.**
3. **Ho Sōkratēs ton tou andros kritēn etarakse.**

(b) Translate into Ancient Greek:

4. *Socrates found the meaning.*
5. *The judge made the gift of the man of the kingdom.*
6. *The sage of Athens knew the city-state of Greece.*

⚠ Ancient Greek belongs to the Graeco-Phrygian branch of the Indo-European family. It was spoken in ancient Greece around 2,300 years ago.

**ph** and **th** are consonants. **ē**, **ō**, and **y** are vowels.

Athens was a city-state in ancient Greece. Socrates was an ancient Greek philosopher.

—Zixiong Liu

**Problem 3 (20 points).** Here are some sentences in Ikoma and their English translations:

|                      |                                   |
|----------------------|-----------------------------------|
| <i>aramobisa</i>     | <i>He is hiding him.</i>          |
| <i>batararoma</i>    | <i>They aren't biting.</i>        |
| <i>mbaagokeŋga</i>   | <i>They obstruct something.</i>   |
| <i>mbaakonendiri</i> | <i>They protected you.</i>        |
| <i>moogatotuka</i>   | <i>You (pl.) start to dig us.</i> |
| <i>neekabasooka</i>  | <i>I start to obey them.</i>      |
| <i>noonsungiri</i>   | <i>You hung me.</i>               |
| <i>ntookoŋina</i>    | <i>We doubt something.</i>        |
| <i>orabamera</i>     | <i>You are swallowing them.</i>   |

(a) Translate into English:

1. *barambisa*
2. *naagosuŋga*
3. *neragokeŋga*
4. *totaakamoroma*

(b) Translate into Ikoma:

5. *He obeyed you.*
6. *I am not protecting something.*
7. *They start to bite you.*
8. *They swallow him.*
9. *You (pl.) don't start to dig me.*
10. *You hide us.*

⚠ Ikoma belongs to the Bantu group of the Atlantic-Congo family. It is spoken by approx. 19,000 people in Tanzania.

ŋ = ng in *hang*. The doubling of a vowel denotes length.

—Ziche Chen

**Problem 4 (20 points).** Here are some arithmetic equalities in Karbi:

1.  $\text{nerkep} \times \text{sirkep} = \text{throksikepra hini}$
2.  $\text{kreketom} \times \text{throk} = \text{throksikepra nerkep}$
3.  $\text{ingkoira sirkep} + \text{thomkepra isi} = \text{throkkep}$
4.  $\text{phokepra throk} + \text{thomkepra pho} = \text{throksirkepra isi}$
5.  $\text{kep} \times \text{phli} - \text{thomkepra kethom} = \text{throknerkepra phli} \div \text{krehini} = \text{throksi}$

All numbers in these equalities are less than 100.

(a) Write these equalities in Arabic numerals.

(b) Write out in Karbi: 20; 97.

⚠ Karbi belongs to the Kuki-Chin-Naga branch of the Sino-Tibetan family. It is spoken by approx. 530,000 people in India and Bangladesh.

$\text{throksikepra} \neq \text{throksirkepra}$ . **ng**, **ph**, and **th** are consonants.

—Jin Xu

**Problem 5 (20 points).** Here are some words in Yiddish and their English translations:

לאַנד    *land*  
שטערן    *star*

(a) Determine the correct correspondences:

- |                   |                            |
|-------------------|----------------------------|
| 1. אָוונטשטערן    | A. <i>astronaut</i>        |
| 2. גויִשער        | B. <i>evening star</i>     |
| 3. קאַפּ גויִשער  | C. <i>father</i>           |
| 4. גריכנלאַנד     | D. <i>foolish person</i>   |
| 5. קאַפּ ייִדישער | E. <i>Greece</i>           |
| 6. ייִדנלאַנד     | F. <i>Hebrew language</i>  |
| 7. קודש לשון      | G. <i>holy</i>             |
| 8. לשון מאַמע     | H. <i>Land of Jews</i>     |
| 9. מאַרגן         | I. <i>morning star</i>     |
| 10. מאַרגנשטערן   | J. <i>native country</i>   |
| 11. פאַטער        | K. <i>non-Jewish</i>       |
| 12. פאַטערלאַנד   | L. <i>smart person</i>     |
| 13. קודש          | M. <i>tomorrow</i>         |
| 14. שטערנפֿליער   | N. <i>Yiddish language</i> |

(b) Translate into English:

15. גריכן  
16. לשון

(c) Translate into Yiddish:

17. *head*  
18. *morning*  
19. *mother*  
20. *pilot*

The answer to one of (17–20) should coincide with one of (1–14).

⚠ Yiddish belongs to the Germanic branch of the Indo-European family. It is spoken by approx. 370,000 people of the Jewish ethnic groups in Israel, the USA, Germany, etc.

Land of Jews is a poetic name for Israel. The textual source for the Christian Old Testament is almost exclusively in Classical Hebrew.  
—Yuyang Liu, Lin Ye

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Good luck!

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Solutions

## Problem 1.

1. **ati etanal**
2. **cishar pulumchva**
3. **eslz**
4. **zathrum avil**
5. **pulumchva atial**
6. *the stars of the mother*
7. **ushil tmial**
8. *the sun of the temple*
9. II7
10. J18A·~Y4⊗AI·~3J33
11. JAITA·AI~T
12. JA7AJII·JIMY
13. A8X~YJY1·~Y4⊗AI·~3I7
14. *seventeen stars*
15. JA7AJII·YAT3
16. *the sanctuary of the chief*
17. J18A·4AM
18. **shar avil**
19. JAI~T·YAT3
20. **etan tmial**

## Problem 2.

- (a)
  1. *The knowledge of the sailor hurt the child of the general.*
  2. *The sage killed the hope of the merchant.*
  3. *Socrates disturbed the judge of the man.*
- (b)
  4. **Ho Sōkratēs to noēma heure.**
  5. **Ho kritēs to tou tēs basileias andros dōron epoiēse.**
  6. **Ho tōn Athēnōn sophos tēn tēs Hellados polin emathe.**

**Problem 3.**

- (a) 1. *They are hiding me.*  
2. *He hangs something.*  
3. *I am obstructing you.*  
4. *We don't start to bite him.*
- (b) 5. *naagosookiri*  
6. *netaranenda*  
7. *baagakoroma*  
8. *mbaakomomera*  
9. *motaakantuka*  
10. *noogotobisa*

**Problem 4.**

- (a) 1.  $8 \times 9 = 72$   
2.  $13 \times 6 = 78$   
3.  $29 + 31 = 60$   
4.  $56 + 35 = 91$   
5.  $10 \times 4 - 33 = 84 \div 12 = 7$
- (b) 20 = **ingkoi**  
97 = **throksirkepra throksi**

**Problem 5.**

- (a) 

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| B | K | D | E | L | H | F | N | M | I  | C  | J  | G  | A  |
- (b) 15. *Greeks*  
16. *language*
- (c) 17. קאָפּ  
18. מאָרגן  
19. מאַמע  
20. פֿליער