



2018 第二屆語言分析黑客松

2018 2nd Linguistic Analysis Hackathon

個人組

姓名：

編號：

第二屆語言分析黑客松 (2018).

A卷題目

第二屆語言分析黑客松

台大文學院 2018 年 5 月 12 日

A 卷題目

解題規則

毋需抄題·將不同問題的解答分述於不同的答題紙上·每張紙上註明題號·座位號和姓名·否則答題紙可能被誤放或張冠李戴·解答須詳細論證·無解釋之答案·即便完全正確·也會被處以低分·

第一題(00分).

以下是六本書的資料(書名/出版地/出版社/ISBN:國際標準書號)

The following are information regarding six books (title/place of publication/publisher/ ISBN: International Standard Book Number)

·Factfulness / England / Sceptre / 9781473637467
 ·Theatre sans frontieres Passe-Partout / Paris / Hachette / 97820027113
 ·Die Blechtrommel / Germany / dtv Verlagsgesellschaft / 9783423118217
 ·Handbook on Nuclear Law / Vienna / International Atomic Energy Agency / 9789201057037
 ·Solidated Versions of the Treaty on European Union and of the Treaty Establishing the European Community / Europe / European Union / 9789282431900
 ·守護書的貓/ 台灣/ 愛米粒/ 9789869601252

(a) 請將以下書與對應的ISBN作配對

Please match each book with its corresponding ISBN.

- A. Dictionary of world biography / Chicago / Fitzroy Dearborn Publishers
- B. 天長地久：給美君的信 / 台灣 / 天下雜誌
- C. Österreichische Privatrechtsgeschichte / Austria / Verlag Österreich
- D. Comédie française : choses vues au cœur du pouvoir / France / Fayard
- E. Tourism market trends, Europe / Spain / World Tourism Organization
- F. Российская национальная библиотека: 1795-1995 / Russia / Liki Rossii

(b)

1. 9789284408009 → ()
2. 9782213678450 → ()
3. 9789863983330 → ()
4. 9783704667434 → ()
5. 9781579580445 → ()

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第二題(00分).

謝姓學者一日在臺灣大學總圖地下室考古，意外在牆壁的縫隙中找到一堆神秘的符號，疑似是 50 年前一群學長姐為了不讓別人知曉彼此的對話內容，因而創造的一種溝通模式。經過多次資料比對和相關人士訪談，收集到當中可能的內容，目前只能暫時判斷照片中上方的句子為：“你今天午餐吃甚麼?”

Scholar Hsieh was spending an entire day in NTU library's basement doing archaeology work when he came across mysterious symbols in a crack in a wall. It looked like a form of communication created fifty years ago by students who didn't want others to know the contents of their conversations. After multiple data comparisons and interviews with relevant parties, of the content collected from the wall, Scholar Hsieh could only deduce the sentence at the top of the picture means, "What did you eat for lunch?"

(a) 請將其他句子與以下內容配對:

Please match the rest of the sentences above with the meanings below:

1. 等下要吃甚麼? / What are we going to eat?
2. 我女朋友和我分手。 / My girlfriend and I broke up.
3. 他想睡覺。 / He wants to sleep.
4. 昨天沒睡都在寫報告，好累。 / I was up all night writing a report. I'm so tired.
5. 明天一起翹課! / Let's skip class tomorrow!
6. 他女朋友劈腿! / His girlfriend cheated on him!
7. 隔壁的學長好帥! / The senior next door is really handsome!
8. 好想和學長交往! / I really want to date that senior!
9. 我的作業沒寫，你的作業借我。 / I didn't write my homework. Lend me yours.

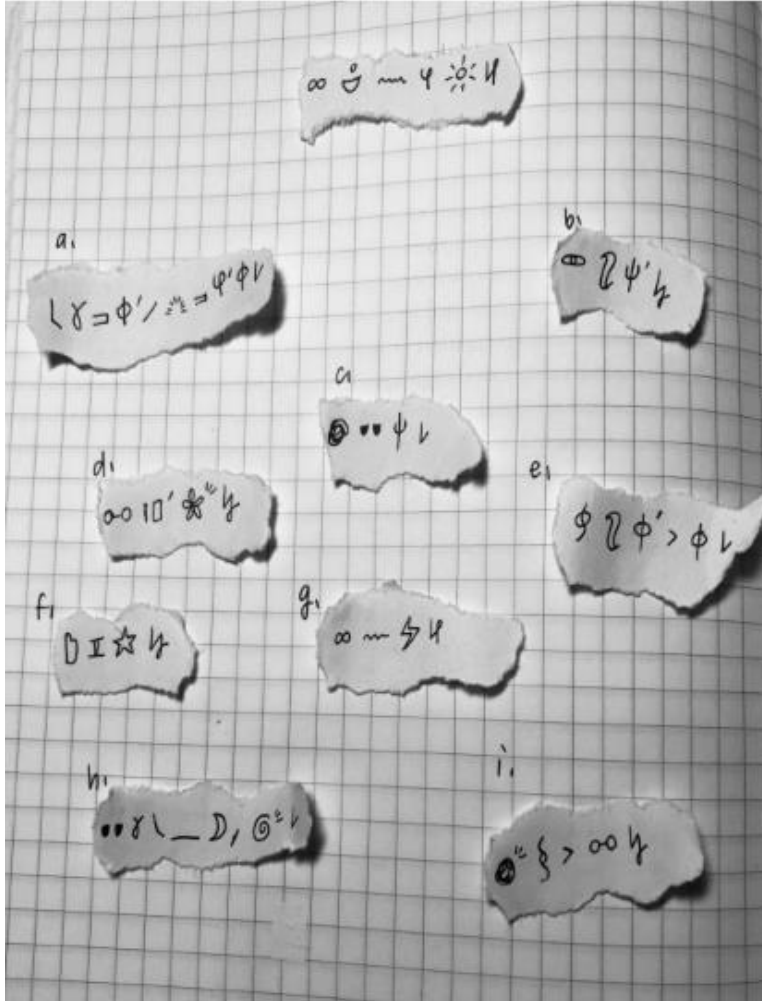
(b) 請將以下內容翻譯成該溝通模式的符號形式:

Please translate the following sentences into their form of communication:

1. 我好想交女朋友。 / I really want to find a girlfriend.
2. 昨天和學長吃午餐! / I had lunch with the senior yesterday!
3. 你的作業借他女朋友，我明天和你一起翹課。 / Lend your homework to his girlfriend. I'll skip class with you tomorrow.

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▲提示:此溝通模式包含標點符號，第二大題中亦須表示出來。

▲Hint: This form of communication includes punctuation. Please include punctuation in the second part.

— 錢龍 / 鄧詠心 / 夏軒寧

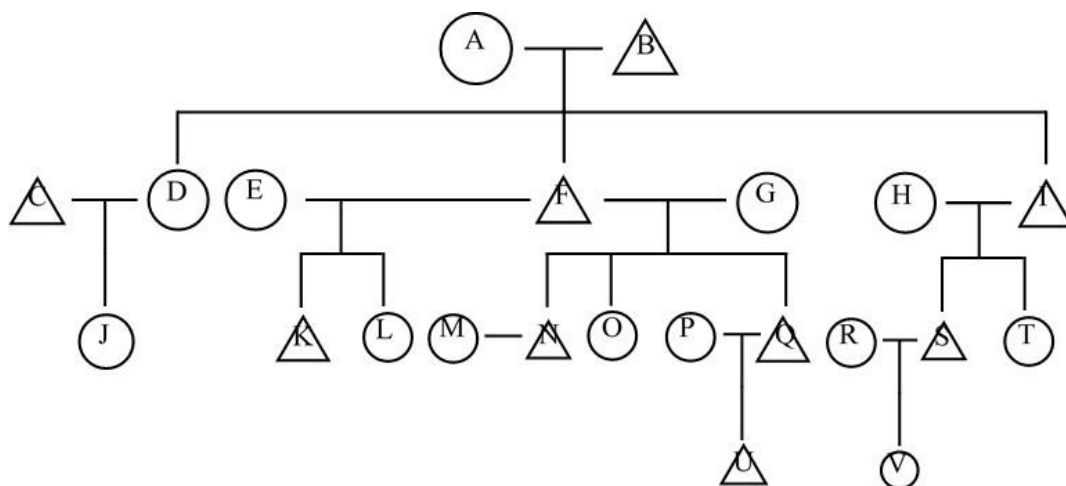
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第三題(00分).

Igbo是一種通行於西非國家奈及利亞的伊博族語言，屬於尼日-剛果語系的大西洋語支，有主要語言人口1800萬。下圖為伊博族某家族的家庭關係樹狀圖，下文為以Igbo書寫之對家族成員關係的說明，試以此二線索回答問題。

Igbo is a language spoken by the Igbo people native in the western African nation of Nigeria. It is an Atlantic-Congo language, which is a part of the Niger-Congo language family. It is the main language for 18 million people. The diagram below is a family tree of an Igbo family. The following is an explanation of the relationships between family members written in Igbo. Please use the two clues below to answer the questions.



以下是部分Igbo語句:

Below are some sentences in Igbo:

1. Kanyinulia Buekechukwu bu nne nke Adaugo Buekechukwu.
2. Adaolisa Azubuike bu ada nke Obiajulu Obiefune.
3. Obiajulu Obiefune bu di nke Ifeyinwa Obiajulu.
4. Kristibueze Obiajulu bu nna nke Daluchi Kristibueze.
5. Kelechi Buekechukwu bu nwanne nwoke nke Adaego Buekechukwu.
6. Bunkechukwu Obiajulu bu nwa nwoke nke Ifeyinwa Obiajulu.
7. Ndidu Kristibueze bu nne nke Esomchi Kristibueze.
8. Kachisicho Buekechukwu bu okpara nke Ugoulo Buekechukwu
9. Ikechukwu Kachisicho bu okpara nke Isioma Kachisicho.
10. Adaugo Buekechukwu bu nwanne nwanyi nke Adaego Buekechukwu.
11. Esomchi Kristibueze bu okpara nke Kristibueze Obiajulu.
12. Adaego Buekechukwu bu ada nke Ugoulo Buekechukwu.
13. Kristibueze Obiajulu bu okpara nke Obiajulu Obiefune.
14. Ogechukwukama Azubuike bu ada nke Adaolisa Azubuike.
15. Buekechukwu Obiajulu bu nna nke Kachisicho Buekechukwu.
16. Adaego Buekechukwu bu nwanne nwanyi nke Kelechi Buekechukwu.
17. Ifeyinwa Obiajulu bu nwunye nke Obiajulu Obiefune.
18. Ugoulo Buekechukwu bu nne nke Kelechi Buekechukwu.

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19. Ihuoma Esomchi bụ ada nke Ifedimma Esomchi.
20. Ugoulo Buekechukwu bụ nwunye nke Buekechukwu Obiajulu.
21. Debare Buekechukwu bụ nwanne nwoke nke Adaugo Buekechukwu.
22. Azubuike Ganiru bụ di nke Adaolisa Azubuike.

- (a) 這些Igbo句子描述了上面的家族樹狀圖（圖中三角形為男性，圓形為女性），不過缺少了其中一個人“**Epkereamaka Kelechi**”。試將每個人名對應到圖中的編號。

These Igbo sentences describe the family tree above (triangles represent males; circles represent females) but is missing one person—“Epkereamaka Kelechi.” Try to match each name with the corresponding number in the diagram.

- (b) 試用Igbo寫出一句話描述“**Epkereamaka Kelechi**”與家族中任一人之間的關係。
Please write a sentence in Igbo that describes the relationship between “Epkereamaka Kelechi” and any other family member.

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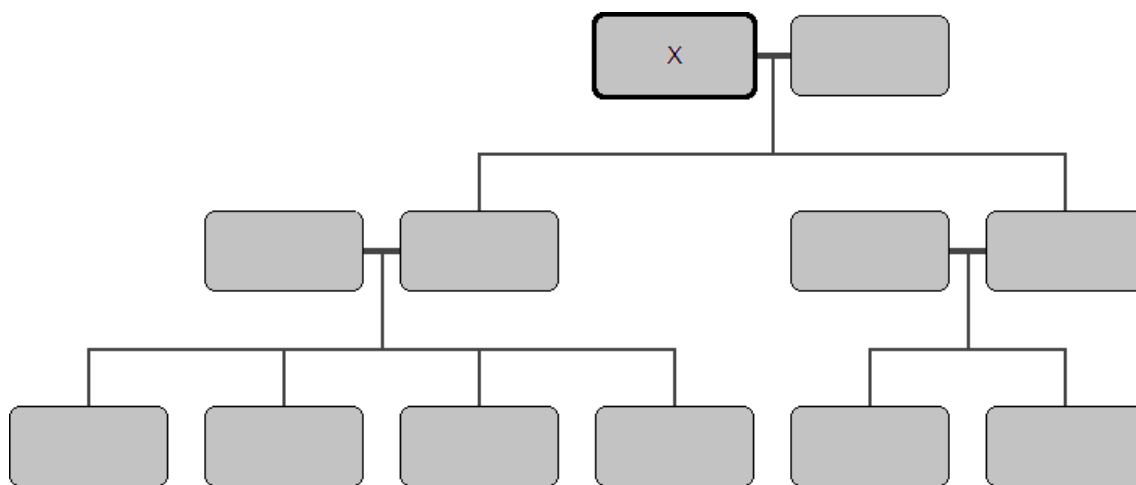
第四題(00分).

一對達悟族的老夫婦有兩個兒子，這兩個兒子又各自成立家庭生了幾個孩子。以下 是對他們家族成員關係的描述。

注意：(1) Maoyong 是常見的男生名 (2) Jilming 是全家族最小的孩子 (3) 雅美語沒有傳統的姓、名概念，畫底線的是名字全稱 (4) 達悟族人一生中可能會經歷多次改名

An old couple has two sons, who also have their own children. Below are some descriptions about the relations of their family members.

Hints: (1) "Maoyong" is a common boy's name. (2) Jilming is the youngest child in the family. (3) The traditional concept of first and last names do not exist in Yami (4) Tao people are likely to change their names multiple times throughout their life.



以下是部分雅美語語句

Below are some sentences in Yami:

1. o ngaran ni ama na ni Zabtek am, Syaman Mateneng.
2. o ngaran ni ina na ni Zabtek am, Synan Mateneng.
3. o ngaran ni apen na ni Zabtek am, Syapen Panikden.
4. o ngaran ni ama na ni Jilming am, Syaman Panikden.
5. o ngaran ni ina na ni Jilming am, Synan Panikden.
6. o ngaran ni maran na ni Mateneng am, Syaman Panikden.
7. o ngaran ni maran na ni Zabtek am, Syaman Panikden.
8. o ngaran ni kaka na ni Syaman Panikden a mehakay am, Syaman Mateneng.
9. o ngaran ni wari na ni Zabtek a mavakes am, Masaray.
10. o ngaran ni wari na ni Masaray am, Maoyong.
11. o ngaran ni kaka na ni Maoyong a mehakay am, Zabtek.
12. o ngaran ni kaka na ni Masaray a mavakes am, Mateneng.
13. o ngaran ni kaka na ni Jilming a mehakay am, Panikden.

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(a) Zabtek 有沒有哥哥/姊姊？如果有，他/她叫什麼名字？（有/沒有、性別及名字）

Does Zabtek have elder brothers or sisters? If yes, what is/are the name(s)? (yes/no, gender, and name)

(b) 長孫(女)是誰？（性別及名字）

Who is the oldest grandson/granddaughter? (gender and name)

(c) 描繪出Zabtek的家庭樹（含性別、排行）。

Draw the family tree of Zabtek (including gender and birth order).

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第五題(00分).

算獨(Kenken/賢くなるパズル)是花式數獨的一個分支，於 2004 年為日本人宮本哲也所改良發行，為啟發性的數學益智遊戲。N×N 算獨的目標是將 1~N 的數字填入算獨中，而它的基本規則為：

- 與一般數獨一樣的，相同數字不可重複在同一行或列中。
- 粗線框內的「算組」必須符合運算提示。

例如：提示中寫著「3 -」，代表在粗線框內填入的數字相減必須等於 3（不論順序，也就是，左減右或右減左成立皆算是符合條件）。

下圖是用北排灣語編寫、完成了一部分的一張算獨。

3 -	
2	5

KenKen (賢くなるパズル) is an instruction-free, logic puzzle and a branch of Sudoku created by Japanese math teacher Tetsuya Miyamoto. The goal of an NxN KenKen puzzle is to have the puzzle filled with numbers from 1 to N. The basics of the game are as follows:

- As in Sudoku, the same number cannot appear more than once in the same row or column.
- Heavily outlined groups or “cages” must comply with the mathematical requirement provided in the cage.

Example: The requirement in the cage says “3 -,” meaning the difference of the numbers filled into the cage must equal 3 (the order of the numbers makes no difference, i.e. left -right, right - left are both acceptable).

The image below is an incomplete KenKen written in Northern Paiwan.

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unem a pulu' katu sepatj x sepatj	tjelu +		sepatj a pulu' x	drusa ÷		ita -	
drusa	tapulu' katu ita +	tjelu - tjelu			taiday sepatj lima	a pulu' x pitju	sepatj ÷
alu			lima -	drusa	tjelu tjelu	sepatj	
drusa ÷	tjelu	pitju pitju	sepatj ÷	tjelu -	alu +	tjelu -	tapulu' katu ita + drusa
tapulu' katu lima x	drusa ÷ sepatj				pitju	drusa	unem
lima	silva+ alu	drusa ÷ sepatj	ita -	pitju	drusa ÷ drusa		
tapulu' katu lima +		drusa	tjelu tjelu	drusa -	drusa ÷	ita - unem	
		tjelu -	drusa			lima -	

▲註：由於版面上的限制，提示中的某些數字必須以兩行字呈現。其換行無語義表現，請將第二行視為第一行的接續。

▲ Note: Because of layout limitations, some of the numbers found in the hint must use two lines. The newlines have no meaning. Please view the second line as a continuation of the first.

(a) 請將以下的北排灣語數字轉寫成阿拉伯數字：

Please transcribe the Northern Paiwan numerals into Arabic numerals.

- A. lima a pulu' katu sepatj
- B. tapulu' katu unem
- C. taiday katu ita
- D. tjelu a iday tapulu' katu alu

(b) 請以北排灣語表示以下的阿拉伯數字：

Please transcribe the Arabic numerals into Northern Paiwan numerals.

- A. 689
- B. 20
- C. 17

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(c) 請以北排灣語完成上圖的算獨。

Please complete the above KenKen using Northern Paiwan numerals.

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第六題(00分).

在一次前往美麗島嶼第瓦納(the Beautiful Island of Tiwana)的夏季旅行中，臭名遠播的歷史/生物學家克勞斯博士(Dr. Krauss)失蹤了。從那時候開始，一群擁有語言學背景的偵探團隊就被召集來追查他。目前為止，只有一小搓線索——有一些信件和筆記，或許是克勞斯博士遺留下來的，以及一份地圖，用來協助救援行動。你能找出他的下落嗎？

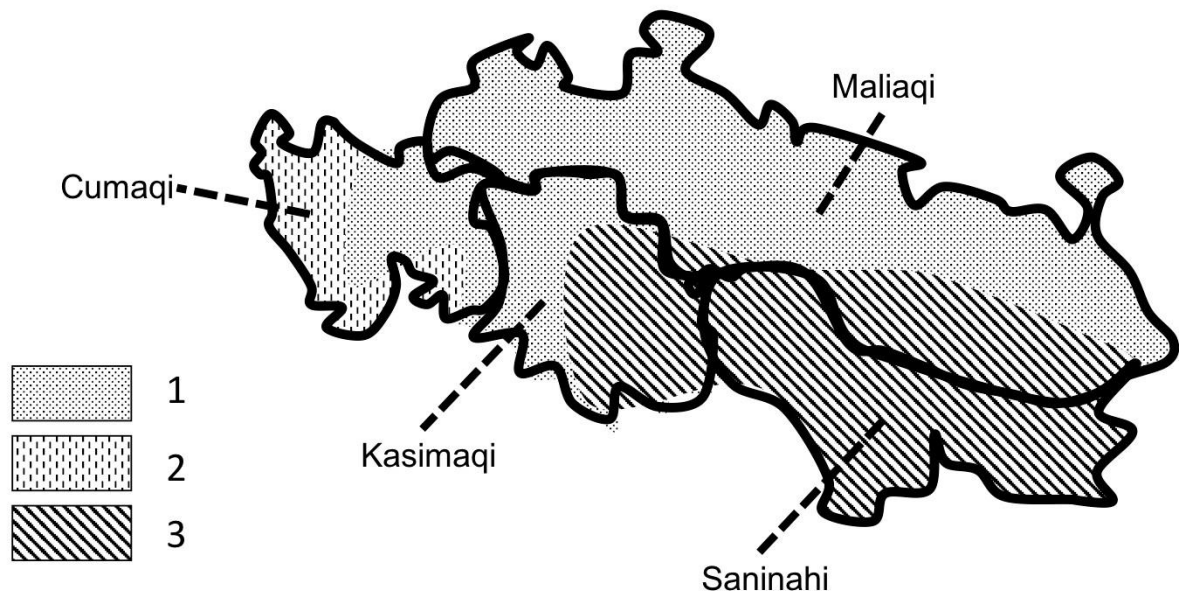
The infamous historian and biologist Dr. Krauss has gone missing when he took a Summer trip to the Beautiful Island of Tiwana. Since then, a special team of linguistic detectives has been assembled to track him down. So far, only have a small set of clues – letters and notes probably left by Dr. Krauss himself – and a map have been uncovered to aid in the rescue. Can you figure out where he is?

線索 1：一份地圖

第瓦納島上的人們說著各種語言，其中之一是努班語(Nubun)。現今有三個努班語的方言群(dialect group)為人所知，分別是東努班語(East Nubun)、西努班語(West Nubun)與南努班語(South Nubun)。這群語言學偵探覺得很幸運能找到島嶼的地圖，但也懷疑地圖的方位有誤...

Clue 1: A map

People on the island of Tiwana speak many languages, one of which is Nubun. So far, three dialect groups have been found of Nubun: East Nubun, West Nubun and South Nubun. The linguistic detectives were lucky enough to find a map of the island, but suspect there is something wrong with the direction the map is faced in...



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線索 2：一些字詞

第二次探查的過程中，語言學偵探團發現了一個表格，對一些字詞做了三個不同方言的比較。

Clue 2: Some words

In their second search, the linguistic detectives found a table with some words that compared the three different dialects.

East Nubun	West Nubun	South Nubun	meaning
cina	tina	(a)	'mother'
masauhzang	masauqzang	macauqzang	'hungry'
sadu	(b)	cadu'u	'see'
las	(c)	lac	'red meat'
kaun	ka'un	ka'un	'eat'
kilim	kilim	kilim	'search'
luvus	luvus	luvuc	'wet'
(d)	tilas	tilac	'rice'
su	su'u	(e)	'you' (singular)

線索3：最後還有一些信件

關於最後一個線索，語言學偵探團隊找到了一本由某一努班方言所寫成的故事書。偵探團相信他們終會找到克勞斯的藏身之處，只要他們讀懂這個故事。幸好，他們已經找到了英文翻譯的版本。但是，細細一看，努班語和英文的句子順序都被打亂了啊！

Clue 3: last letters

In the final clue, the team of linguistic detectives found a story, written in one of the dialects of Nubun.

The detectives believe that they will find the location of Dr. Krauss, once they are able to read it. Luckily, they found an English translation. However, upon closer inspection, it seemed the order of both the Nubun and English was scrambled!

Nubun

- (a) aiza tacini tu tama hudas sia daanan hai
- (b) saduin saia mas cilas sia balivan hai
- (c) asa maun
- (d) masauhzang saia
- (e) kikilim mas kaunun
- (f) balivun saicia cilas a
- (g) manaskalin tama hudas

English

- (1) he kept on looking for food
- (2) he wanted to eat it

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- (3)the old man became happy
- (4)he saw the rice in the store
- (5)there was an old man on the road
- (6)he was hungry
- (7)he bought the rice

(a) 挑戰：你能完成語料表格的填空嗎？

Challenges: Can you fill out the gaps in the table of data?

- (a)
- (b)
- (c)
- (d)

(b)對應出努班各方言與其分布區域。

Which dialect of Nubun is spoken where?

Region 1 on the map/ 地圖上的區域一 =

Region 2 on the map/ 地圖上的區域二 =

Region 3 on the map/ 地圖上的區域三 =

(c) 故事是用哪一個方言寫成的？

In which dialect is the story written?

(d) 你能把努班語和英文的句子一一對應嗎？

Can you pair the corresponding Nubun to English sentences?

- (a)
- (b)
- (c)
- (d)
- (e)
- (f)
- (g)

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(e) 克勞斯博士身處哪個城市？

In which city is Dr. Krauss located?

— *Thomas Van Hoey* 司馬智

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第七題(00分).

本題目採取愛奴語北海道沙流方言，同時，本語料中許多句子是具有歧意的，但本題目為求降低複雜度，並未列出所有翻譯。所有的第二人稱皆不作受詞解釋，回答亦應如此。另外，請注意，在此語言中，針對第三人稱之性，並沒有刻意的區分。

This problem is based on the Saru Dialect of Hokkaido Ainu. In addition, many of the provided sentences could be ambiguous; however, to avoid unnecessary complexity, all 2nd personal pronouns in the examples and in your answers, would not be objects. Please note that in this language, there is no gender marking in the 3rd personal pronouns.

Aynu Itak	中文 English
eas	你站 You (sgl.) stand.
ecieaskay	你們善於某件(些)事 You (plr.) are good at doing it/them.
camkir	我們認識他/他們 We know him/them.
emakpa amkir	你有開過這些 You (sgl.) have the experience of opening them.
ka eramiskari	我沒有坐下過 I don't have the experience of sitting down.
eosurpa	你遺棄他們 You (sgl.) leave them behind.
hopunpaas eaykap	我們不會飛 We cannot fly.
kurayke	我殺他 I kill him.
ecienaste	你們讓我站 You (plr.) make me stand.
care eaykap	我們不能讓他坐下 We cannot make him sit down.
cimakpa	我們開啟某些東西 We open them.
rokas	我們坐下 We sit down.
ehopunpare	你讓他們飛 You (sgl.) make them fly.
keramuoka	我了解某些事 I understand them.
cosura eramiskari	我們沒有遺棄過他 We don't have the experience of leaving it behind.
uronnuas	我們互相殘殺 We kill one another.
eeramuan	你了解某件事 We understand it.
eroskire	你讓他們站 You (sgl.) make them stand.
ecimaka	你們開啟它 You (plr.) open it.
ecirok easkay	你們可以坐 You (plr.) can sit.
eciuronnu	你們殺我們 You (plr.) kill us.
kurokte	我讓他們坐下 I make them sit down.
ecihopunpa	你們飛 You (plr.) fly.
ecirayke eramiskari	你們沒殺過他 You (plr.) don't have the experience of killing it.
kuhopunire	我讓他飛 I make it fly.

請選出：以下何者是不符合該語言規則的。

Please indicate which of the following(s) disobey(s) the rules of the language.

- | | | |
|----------------|---------------|--------|
| a) ecihopunire | b) kuamkir | c) kas |
| d) rokteas | e) eciroskire | f) cas |
| g) eciuronnu | | |

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翻譯 Translation

- 1) 我們沒有站過/ We don't have the experience of standing up.

- 2) 你會飛/ You (sgl.) can fly.

- 3) 你們不認識我/ You (plr.) don't know me.

- 4) 你們互相殘殺/ You (plr.) kill one another.

- 5) 你殺過他們/ You (sgl.) kill them.

- 6) 你們認識我/You (plr.) know us.

- 7) 我不善於某件(些)事 / I'm not good at doing it/them.

- 8) 我們沒開過這些/ We don't have the experience of opening theme.

- 9) 你們不能讓我們坐下/ You (plr.) cannot make us sit down.

- 10) 我們不曾離過婚/ We don't have the experience of divorcing.

▲參考資料（五十音順）：

- アイヌ民族博物館アイヌ語アーカイブ：<http://ainugo.ainu-museum.or.jp/>
- 公益財団法人アイヌ民族文化財団 アイヌ語教材テキスト 沙流方言
<https://www.frpac.or.jp/web/learn/language/dialect.html>
- 中川 裕(2013) CD 付ニューエクスプレス アイヌ語 東京: 白水社

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加油!

解答

第二屆語言分析黑客松 (2018).

A卷解答

第二屆語言分析黑客松

2018年5月12日

A卷-解答

第一題.

ANSWER	
•	9789284408009 → (e)
•	9782213678450 → (d)
•	9789863983330 → (b)
•	9783704667434 → (c)
•	9781101870532 → (a)

第二題.

(a) 1.g

2.e

3.c

4.h

5.f

6.b

7.d

8.i

9.a

(b) 基本文法:動詞+主詞+受詞+時間/地方副詞

第三題.

尚無提供解答

第四題.

(a) 有, Zabtek有一個姐姐, 名字叫Mateneng。

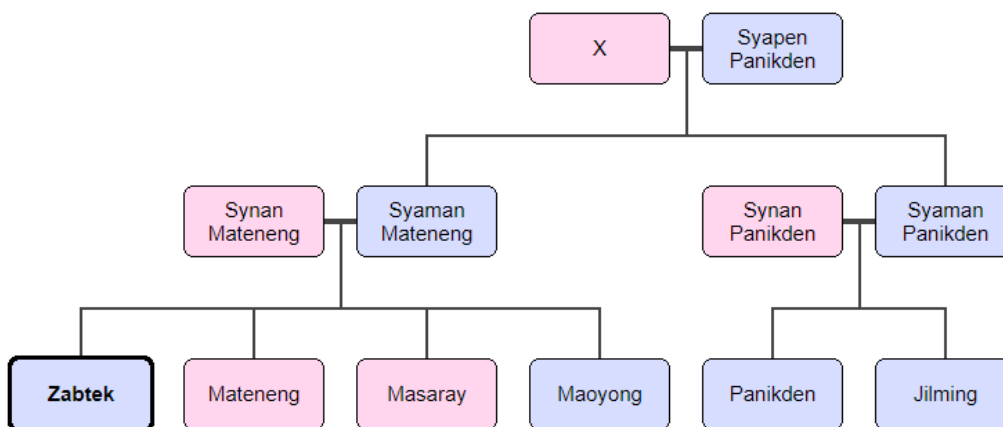
Yes, Zabtek has one elder sister whose name is Mateneng.

(b) Panikden是長孫。

Panikden is the oldest grandson.

第二屆語言分析黑客松 (2018).
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(c)



Translation

Translated sentences in Mandarin Chinese	Original sentences in Yami
1. <u>Zabtek</u> 爸爸的名字是 <u>Syaman Mateneng</u> 。	1. o ngaran ni ama na ni <u>Zabtek</u> am, <u>Syaman Mateneng</u> .
2. <u>Zabtek</u> 媽媽的名字是 <u>Synan Mateneng</u> 。	2. o ngaran ni ina na ni <u>Zabtek</u> am, <u>Synan Mateneng</u> .
3. <u>Zabtek</u> 爺爺的名字是 <u>Syapen Panikden</u> 。	3. o ngaran ni apen na ni <u>Zabtek</u> am, <u>Syapen Panikden</u> .
4. <u>Jilming</u> 爸爸的名字是 <u>Syaman Panikden</u> 。	4. o ngaran ni ama na ni <u>Jilming</u> am, <u>Syaman Panikden</u> .
5. <u>Jilming</u> 媽媽的名字是 <u>Synan Panikden</u> 。	5. o ngaran ni ina na ni <u>Jilming</u> am, <u>Synan</u>

第二屆語言分析黑客松 (2018).

A卷解答

第五題.

(a) A. 54 B. 16 C. 101 D. 318

(b)

A. unem a iday alu a pulu' katu siva

B. drusa a pulu'

C. tapulu' katu tjelu

(c)

<u>sepatj</u>	<u>drusa</u>	<u>ita</u>	lima	<u>tjelu</u>	<u>unem</u>	<u>alu</u>	<u>pitju</u>
<u>drusa</u>	<u>unem</u>	<u>tjelu</u>	<u>alu</u>	<u>ita</u>	lima	<u>pitju</u>	<u>sepatj</u>
<u>alu</u>	lima	<u>unem</u>	<u>pitju</u>	<u>drusa</u>	<u>tjelu</u>	<u>sepatj</u>	<u>ita</u>
<u>unem</u>	<u>tjelu</u>	<u>pitju</u>	<u>sepatj</u>	<u>alu</u>	<u>ita</u>	lima	<u>drusa</u>
<u>tjelu</u>	<u>sepatj</u>	<u>alu</u>	<u>ita</u>	lima	<u>pitju</u>	<u>drusa</u>	<u>unem</u>
lima	<u>alu</u>	<u>sepatj</u>	<u>unem</u>	<u>pitju</u>	<u>drusa</u>	<u>ita</u>	<u>tjelu</u>
<u>pitju</u>	<u>ita</u>	<u>drusa</u>	<u>tjelu</u>	<u>sepatj</u>	<u>alu</u>	<u>unem</u>	lima
<u>ita</u>	<u>pitju</u>	lima	<u>drusa</u>	<u>unem</u>	<u>sepatj</u>	<u>tjelu</u>	<u>alu</u>

第二屆語言分析黑客松 (2018).

A卷解答

第六題.

Can you fill out the gaps in the table of data?

First, they should make a comparison of features between the different columns in the table. Basically, it is important to see that East and West Nubun look a lot like each other, and that South Nubun looks a bit like West Nubun.

e.g.

- EN c- = WN t- = SN t-
- EN h = WN q = SN q
- EN s = WN s = SN c
- EN u = WN u'u = SN u'u

(a)

- (a) tina
- (b) sadu'u
- (c) las
- (d) cilas
- (e) cu'u

(b) Which dialect of Nubun is spoken where?

We know we are dealing with East, West and South Nubun. Looking at the sound correspondences we made before, and the place names, we can see that the cities end in aqi or ahi. Therefore, Saninahi is East Nubun. It is logical that Kasimaqi and Maliaqi are West Nubun, and Cumaqi is South Nubun.

However, another clue is that Cumaqi has both the q and the initial c where East Nubun would have an s.

Region 1 on the map = West Nubun Region 2 on the map = South Nubun

Region 3 on the map = East Nubun

(c) In which dialect is the story written?

If they found the word for 'rice' cilas in the previous challenge, this should be very easy: **East Nubun**. But there are other words that give it away.

(d) Can you pair the corresponding Nubun to English sentences?

- (a) 5
- (b) 4
- (c) 2
- (d) 6
- (e) 1
- (f) 7
- (g) 3

(e) In which city is Dr. Krauss located?

He's in **Saninahi**, where they speak East Nubun. The story is the clue.