2020 全國初選 — 台灣國手選拔賽

(TOL, INDIVIDUAL CONTEST, 1st ROUND, 2020)

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IOL

國際語言學奧林匹亞
International Linguistics Olympiad

全國初選 — 台灣國手選拔賽

2020 年 2 月 16 日 Feb. 16, 2020
個人賽 Individual Contest Problems

解題規則 Rules for writing out the solutions

不用抄題，把答案直接寫在答案卷上。 有需要解釋的題目如果沒有附上解釋，答案即使正確也會予以扣分。

Do not copy the problems. Write down your solutions on the answer sheets. For some problems, your answers must be provided with explanation; otherwise, even a perfectly correct answer will be given a low score.

第一題 Problem #1 (20pt) 賽考利克泰雅語 Squliq Atayal

1~8是八個賽考利克泰雅語句子，請在下方空白表格配對其翻譯。(每題 2.5 分)
1~8 are eight Squliq Atayal sentences, please fill in the table below to match their correct translations. (2.5 pt each)

1	tcingun saku' nya'.
2	tcingun maku' qu 'laqi' nha'.
3	tcingun simu myan.
4	tcingun su' myan.
5	tcingun su' nha'.
6	tcingun saku' nha'.

A	他將打你。 He will hit you
B	他將打我。 He will hit me.
C	我們將打你。 We will hit you.
D	他們將打我。 They will hit me.
E	Botu將打他的小孩。 Botu will hit his kid.
F	他們將打你。 They will hit you.

7	tcingun su' nya'.
8	tcingun ni Botu qu 'laqi' nya'.

G	我將打他們的小孩。 I will hit their kid.
H	我們將打你們。 We will hit you (pl).

※ “ ' ”為聲門塞音。　“ ' ” denotes glottal stop.

1	2	3	4	5	6	7	8

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註：泰雅語主要有賽考利克與澤敖利兩個方言群，賽考利克泰雅語使用者較多，且各地區方言歧異較小。

NOTE: Squliq and C'uli' are two major dialect groups in Atayal. There are more Squliq speakers and the variation within different regions on Squliq is smaller.

資料來源　Reference
黃美金、吳新生。《泰雅語語法概論》。2018。

第二題 Problem #2 (20pt) 關達拉語 Gwandara

關達拉語中有多種不同方言，以下提供的是一些以Nimbia方言所寫成的算數等式，這些等式由短到長排列。等式裡所出現的數字全都介於1~250之間。

There are many different dialects in the Gwandara language. Here are some arithmetic equalities written in Nimbia dialect. All numbers in the equalities are between 1 and 250.

$$bo'o^{bi} = gume\ furu\ ni\ da$$

$$da + biyar + furu = bi^{bi} + shide$$

$$gume\ bi\ ni\ kwada = biyar \times bo'o$$

$$ugu^{biyar} = wo\ ni\ gume\ tager\ ni\ ugu$$

$$wo\ ni\ ugu - tager = gume\ kwada\ ni\ bo'o$$

$$gume\ bo'o\ ni\ tager \div furu = tuni\ mbe\ kwada$$

$$tuni\ mbe\ shide + da^{shide} + gwom = gume\ bi\ ni\ biyar$$

$$tuni\ mbe\ gwom + gume\ shide\ ni\ ugu = gume\ tager\ ni\ da$$

$$wo\ ni\ gume\ biyar\ ni\ bi = gume\ shide\ ni\ furu + gume\ gwom\ ni\ gwom$$

1. (6pt) 以下三個算數等式中，等號左邊由Karshi方言寫成，等號右邊則由Nimbia方言寫成。用阿拉伯數字寫出以下三個等式：

In the following three equalities, the left side of the equal sign is written in the Karshi dialect while the right side is written in the Nimbia dialect. Write the following three equalities in Arabic numerals:

(1) gom sha takushi + gom sha biyari = gume bi ni tanran
(2) ashirini n huru + deri bi = wo ni gume shide ni tager
(3) gom sha tara + bakwe + ashirini n uku = tuni mbe tanran + gume bi ni furu

2. (4pt)用阿拉伯數字寫出以下的Karshi方言數字：
   Write the following Karshi dialect numbers in Arabic numerals:

   (1) takushi
   (2) ashirini n bakwe

3. (10pt) 用Nimbia方言表示出以下的阿拉伯數字：
   Write the following Arabic numerals in Nimbia dialect:

   (1) 20
   (2) 100
   (3) 110
   (4) 153
   (5) 999

✳✳✳✳
註：關達拉語屬於亞非語系查德語族的一個語言，擁有六種方言，在奈及利亞的中北部地區約有使用人數三萬名。
NOTE: Gwandara is a language belonging to the Chadic branch under the Afro-Asiatic language family. It has 6 dialects and has about 30,000 speakers in the north-central region of Nigeria.

資料來源 Reference
Shuji Matsushita, 1974. A comparative vocabulary of Gwandara dialects.
http://www.sf.airnet.ne.jp/ts/language/number/nimbia.html

第三題 Problem #3 (20pt) 加泰隆尼亞語 Catalan

以下是部分加泰隆尼亞語詞彙

Below are some words in Catalan.

加泰隆尼亞語 Catalan	IPA	中文	English
company	kum.ˈpaɲ	夥伴(m.)	companion(m.)
català	kə.tə.ˈla	加泰隆尼亞人(m.)	Catalonian(m.)
amiga	ə.ˈmi.ɣə	朋友(f.)	friend(f.)
germana	dʒəɾ.ˈma.nə	姊妹	sister
nebot	nə.ˈβot	外甥	nephew
Ucraïna	u.kɾə.ˈi.nə	烏克蘭	Ukraine
esclava	əs.ˈkla.βə	奴隸(f.)	slave(f.)
noruec	nu.ˈrwek	挪威人(m.)	Norwegian(m.)
detectiu	də.tək.ˈtiw	偵探(m.)	detective(m.)
esclau	əs.ˈklaw	奴隸(m.)	slave(m.)
neboda	nə.ˈβo.ðə	姪女	niece
felina	fə.ˈli.nə	像貓的(f.)	feline(f.)
amarantina	ə.mə.ɾən.ˈti.nə	莧菜色(f.)	amaranth(f.)

填入空格(中文及英文擇一作答)

Fill in the blanks (Choose either Chinese or English for your answers):

	kə.tə.ˈla.nə		
companya		夥伴(f.)	companion(f.)
informàtica		資訊科學	informatics
beduí		貝都因人(m.)	Bedouin(m.)
	ˈʎop	狼(m.)	wolf(m.)

Spelling	IPA	中文	English
	bə.ðu.ˈi.nə		
		兄弟	brother
		朋友(m.)	friend(m.)
	də.tək.ˈti.βə		
plana		平的(f.)	flat(f.)
	nu.ˈɾwe.ɣə		
		像貓的(m.)	feline(m.)
govern		政府	government
		平的(m.)	flat(m.)
	ə.mə.ɾən.ˈti		
segon		第二(m.)	second(m.)

只根據給定的資料，「狼(f.)」有多於一種可能的寫法。解釋原因並給出所有可能的寫法和其 IPA 音標。

Using solely the given data, one might conclude that there exists more than one possible form of "wolf(f.)". Explain why and give all the possible forms along with their IPA transcriptions.

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註：ˈ 表示重音音節，. 是音節邊界。β, ð, ɣ 分別為弱化的 b, d, g。IPA (國際音標)是一組用於標示發音的音標系統。m.和 f.分別表示陽性和陰性。莧菜色是一種近似紅色的顏色。貝都因人指在沙漠游牧的阿拉伯人。加泰隆尼亞語屬於羅曼語族，在安道爾和西班牙加泰隆尼亞、瓦倫西亞及巴利亞利群島約有四百萬人使用。

NOTE: ˈ denotes syllable stress; . denotes syllable boundary. β, ð, and ɣ are lenited b, d, and g respectively. IPA (international phonetic alphabet) is a set of phonetic symbols used to transcribe pronunciations. m. and f. denote masculine and feminine respectively. Amaranth is a reddish color. The Bedouin are a nomadic Arab grouping that inhabited the deserts. Catalan is a Romance language spoken by some 4 million people in Andorra and Catalonia, Valencia and the Balearic Islands in Spain.

資料來源 Reference
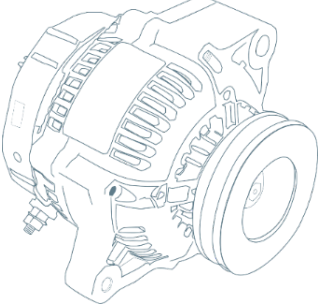
Dols and Nicolas, 1999. Catalan - a Comprehensive Grammar.

第四題 Problem #4 (20pt) 塔里亞那語 Tariana

塔里亞那語 Tariana	字根含意	衍伸含意	Meaning of Root	Derived Meaning
awhida	番薯	一顆番薯	sweet potato	a sweet potato
hekuda	樹	一顆果實	tree	a fruit
kokuda	椰子	一顆椰子	coconut	a coconut
mangada	芒果	一顆芒果	mango	a mango
dapikha	藤蔓	一條藤蔓	vine	a vine
episikha	鐵	一條鐵線	iron	an iron wire
ihakha	排泄物	一條腸子	faeces	an intestine
yawiyekha	美洲豹的牙齒	一顆美洲豹的牙齒	jaguar tooth	a jaguar tooth
hipakwa	石頭	一片充滿石頭的平面	stone	a stony surface
hekuna	樹	一棵樹	tree	a tree
hyapana	山丘	一座山丘	hill	a hill
ikurina	烏龜	烏龜之丘	turtle	the Hill of Turtle
mangana	芒果	一棵芒果樹	mango	a mango tree
waliruna	邪靈	邪靈之山	evil spirit	the Mt. of Evil Spirits
darayana	橘子	一棵橘子樹	orange	an orange tree
paperaphe	紙	一張紙	paper	a sheet of paper
yemaphe	菸草	一片菸葉	tobacco	a tobacco leaf
thakuyawa	鼻子	一個鼻孔	nose	a nostril

※ 本語料中 p, t, k 代表注音符號中ㄅ、ㄉ、ㄍ；ph, th, kh則代表ㄆ、ㄊ、ㄎ

1. 請找出下列對應關係(每題1.5分)：

Please match the Tariana words with the pictures (1.5pt each):

| A. enukwa | B. hipada | C. episida | D. nawikiyawa | E. siduana |

答案 Answer	圖片 Picture

1. 請找出下列對應關係(每題1.5分)：

Please match the Tariana words with the pictures (1.5pt each):

2. 請翻譯出下列詞彙： Please translate the following words:
   (1)~(3) 每題1.5分；(4)~(7) 每題2分。(1)~(3) 1.5 pt each; (4)~(7) 2 pt each.

	衍伸含意	**Derived meaning**	**塔里亞那語 Tariana**
(1)	一根頭髮	a hair	
(2)	一根香菸	a cigarette	
(3)	一顆眼睛	an eye	
(4)	一條釣魚線	a fishing line	
(5)	一條蕃薯藤	a sweet potato vine	
(6)	一口水井	a well	
(7)	一個小腿肚	a calf (of leg)	

這裡提供一些新字根及其含意，不見得每個字都會用到。
New roots are provided. Note that not all words would be used.

塔里亞那語 Tariana	字根含意	**Meaning of Root**
thi	眼	eye
uni	水、河	water, river
kawa	腳	leg
itʃa	髮	hair
pana	葉	leaf
numa	嘴	mouth
deri	香蕉	banana
kule	釣魚用具	fishing tool
pupawa	毒	poison
kewere	島	island
iki	腦	brain

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第五題 Problem #5 (20pt) **Mwotlap** 語

以下是二十一句 Mwotlap 語（當地人稱為 M̄otlap）的句子及其中文翻譯：
Below are 21 Mwotlap (known natively as M̄otlap) sentences and their English translations:

Mwotlap	中文 **English**
namnē balak etbiyiñ te qēlgek	無花果樹的枝條沒有幫助我的岳父 The fig tree's branch didn't help my father-in-law.
nañyēh nonon tētek etbiyiñ te nok	我的姊妹的山薑沒有幫助我 My sister's shell ginger didn't help me.
kē menyē nanyag nagan tētan	他等待了他的姊妹的肉豆蔻 He waited for his sister's wild nutmeg.
qēlgek menyē nōdōlm̄ele nagan	我的岳父等待了他的參薯 My father-in-law waited for his water yam.
nōwōtwōt mino etdēyē te nōdōlm̄ele nakis	我的紋腹叉鼻魨沒有等待我的參薯 My white-spotted puffer didn't wait for my water yam.
tētan mepteg naqaqayek	他的姊妹放下了我的側邊 His sister put down my side.
nōwōtwōt nonon etveteg te namnen qēlgan	他的紋腹叉鼻魨沒有放下他的岳父的手 His white-spotted puffer didn't put down his father-in-law's hand
nok etveteg te natlig nagan	我沒有放下他的石鱉 I didn't put down his chiton
nasyew mino meplig nataqm̄en	我的遠洋水母迴避了他的身體 My mauve stinger avoided his body.
qēlgek etvilig te namlak mino	我的岳父沒有迴避我的無花果樹 My father-in-law didn't avoid my fig tree.
nōwōtwōt nonon qēlgek etvilig te naqaqayan	我的岳父的紋腹叉鼻魨沒有迴避他的側邊 My father-in-law's white-spotted puffer didn't avoid his side.

naqaqaye tilig mehel namnēk	石鱉的側邊割了我的手 The chiton's side cut my hand	
namnē ñēyēh mehel naqaqaye seyew	山薑的枝條割了遠洋水母的側邊 The shell ginger's branch cut the mauve stinger's side.	
tētek mehel nataqm̄ē dilit	我的姊妹割了珍鰺的身體 My sister cut the giant trevally's body.	
nok ethel te namnē ñēyēh	我沒有割山薑的枝條 I didn't cut the shell ginger's branch.	
kē megen nanlit nakis	他吃了我的珍鰺 He ate my giant trevally.	
tētan megen nataqm̄ē tilig	他的姊妹吃了石鱉的身體 His sister ate the chiton's body.	
tētek etgen te nanyag nagan	我的姊妹沒有吃他的肉豆蔻 My sister didn't eat his wild nutmeg.	
nok mewseg nataqm̄ē wōtwōt	我抓住了紋腹叉鼻魨的身體 I seized the white-spotted puffer's body.	
nañyēh nonon mewseg nataqm̄en tētek	他的山薑抓住了我的姊妹的身體 His shell ginger seized my sister's body.	
nasyew nonon qēlgan etweseg te naqtēg bēnēk	他的岳父的遠洋水母沒有抓住我的肩膀 His father-in-law's mauve stinger didn't seize my shoulder.	

※ a, e, i, o, u, ē, ō 是母音，其他的字母都是子音。a、e、i、o、u 分別類似注音符號「ㄚ」、「ㄝ」、「ㄧ」、「ㄛ」、「ㄨ」。ē 為介於「ㄝ」和「ㄧ」之間的音，ō 為介於「ㄛ」和「ㄨ」之間的音。

a, e, i, o, u, ē, ō denote vowels, and all other letters denote consonants. a, e, i, o, u, ē, ō are like the vowels in "f<u>a</u>ther", "<u>e</u>gg", "s<u>ea</u>", "w<u>al</u>k", "g<u>oo</u>se", "s<u>i</u>t", "f<u>oo</u>t" respectively.

※ b、d 分別類似「ㄇㄅ」、「ㄋㄅ」，ñ 類似「ㄥ」。q 為同時發「ㄆ」和「ㄎ」的音。m̄ 為同時發「ㄇ」和 ñ 的音。

b, d, ñ are like the underlined part in "ha<u>mb</u>urger", "e<u>nd</u>ing", "si<u>ng</u>" respectively. q is the sound produced when pronouncing k and p simultaneously. m̄ is the sound produced when pronouncing m and ñ simultaneously.

將底下的句子翻譯成 Mwotlap 語：（每句 2.5 分）
Translate the sentences into Mwotlap: (2.5 pts per sentence)

1. 山薑的枝條割了我的姊妹的參薯/The shell ginger's branch cut my sister's water yam.
2. 他的岳父放下了肉豆蔻的枝條/His father-in-law put down the wild nutmeg's branch.
3. 他的遠洋水母幫助了他/His mauve stinger helped him.

4. 紋腹叉鼻魨的側邊抓住了我的石鱉/The white-spotted puffer's side seized my chiton.

已知「大腿」在字典裡的形式是「na-pkē~」;「寶螺的密花棋盤腳」是「nawtag wōqōl」,翻譯:
Given "thigh" is "na-pkē~" in its dictionary form, "The cowrie's vutu kana" is "nawtag wōqōl", translate:

5. 他的姊妹的紋腹叉鼻魨吃了我的密花棋盤腳/His sister's white-spotted puffer ate my vutu kana.
6. 密花棋盤腳的枝條沒有割我的大腿/The vutu kana's branch didn't cut my thigh.
7. 他的岳父的無花果樹沒有抓住他的大腿/His father-in-law's fig tree didn't seize his thigh.
8. 我的岳父的寶螺割了我的身體/My father-in-law's cowrie cut my body.

※ 肉豆蔻是一種香料。珍鰺是一種大型海洋魚類,在史前時代人類就有捕食的紀錄。石鱉是一種會吸附在石頭上的可食軟體動物。參薯是山藥的近親,是南島人的重要主食之一。紋腹叉鼻魨是一種中大型的河豚,有劇毒。遠洋水母是一種會發光的小型水母,沒有被捕食的紀錄,但最近因為其數量在地中海急遽增加,有多位西方學者呼籲大眾可以多吃這種水母。山薑又稱月桃,雖然名字裡有薑,但不可食。密花棋盤腳是一種可食用的植物。寶螺是一種小型腹足綱軟體動物,不可食,但它的殼在當地傳統遊戲會被使用。

※ Wild nutmeg is a type of spice. Giant trevally is a large marine fish, and it has been hunted and eaten since prehistoric times. Chiton is an edible type of mollusc that adheres to rocks. Water yam is an important staple crop in Austronesian cultures, and it is closely related to Chinese yam. White-spotted puffer is a medium to large-sized puffer fish, and it is highly poisonous. Mauve stinger is a small, luminous jellyfish; while there is no record of it being eaten by humans, many Western scholars advise eating the species because of its rapid growth of population in the mediterranean sea. Vutu kana is an edible plant. Shell ginger, despite its name, is not edible. Cowrie is a small inedible gastropod, and its shell is used in local traditional games.

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註：Mwotlap語屬於南島語系大洋洲語族。在萬那杜，約有2100人使用該語言。
NOTE: Mwotlap is a language belonging to the Austronesian language family under the Oceanic branch. It is spoken by around 2100 people in Vanuatu.

資料來源 Reference
François, Alexandre. 2004. A typological overview of Mwotlap, an Oceanic language of Vanuatu. Linguistic Typology 9 (2005), 115–146. Berlin: Walter de Gruyter.
François, Alexandre. 2020. A Mwotlap–English–French cultural dictionary. Electronic files. Paris: CNRS. [https://tiny.cc/Mwotlap-dict]

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加油！Good luck!