

XIX International Linguistics Olympiad

# Isle of Man



Team Contest Solution Presentation



Minkyu Kim, 29 Jul 2022

XIX International Linguistics Olympiad

# Language of Man



Team Contest Solution Presentation

## Manx in five minutes

**Kys t'ou** [kɪs t̪əu] How are you?

**Ta mee braew** [t̪ə mi brau] I am fine

**Goll as gaccan** [gɔl̪ as gagan] Going and grumbling  
(a common reply to Kys t'ou?)

**Gura mie ayd** [gurə mai ɛd̪] Thank you

**Palçhey puddase as skeddan dy liooar** ['palit̪ə  
pə' d̪ɛ:s as 'skad̪an d̪ə liu:r] Plenty of potatoes and  
herring enough (part of a New Year blessing)

**Bioys da dooinney as baase da eeast** ['bjɔ:əs d̪ɛ:  
d̪u:n̪iə as bɛ:s d̪ɛ: ji:s] Life to man and death to fish  
(i.e. may the fishermen return safely from the sea  
with a good catch)

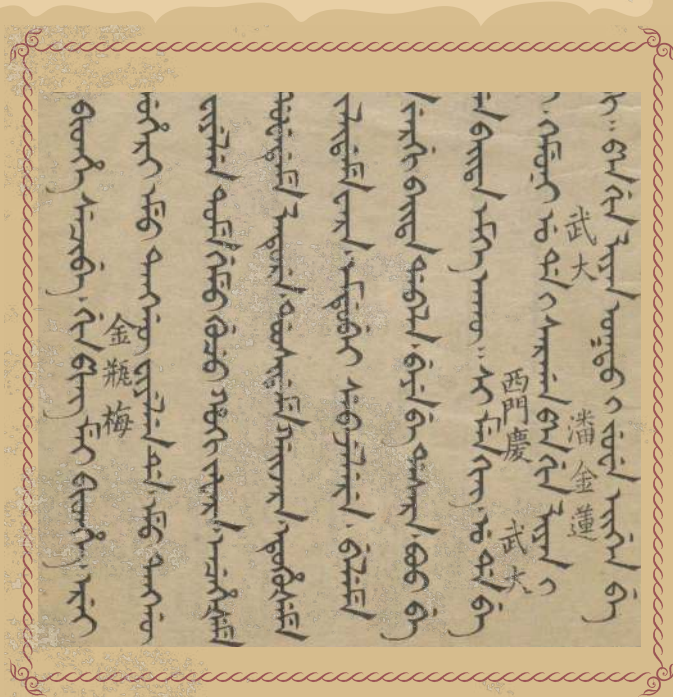
**Ta graih aym ort** [t̪ə grai ɛm ɔrt̪] I love you

XIX International Linguistics Olympiad

# Language of Mǎn 滿



Team Contest Solution Presentation





# Manchu

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*Language of the Last Empire*

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# How to Solve – (1) Analyzing the text

<sup>1</sup> amba age si aibici jihe <sup>2</sup> bi coohiyan\* wang ging<sup>†</sup> ci jihe <sup>3</sup> te absi genembi <sup>4</sup> bi gemun hecen i baru genembi <sup>5</sup> si atanggi wang ging ci juraka <sup>6</sup> bi ere biya ice de juraka <sup>7</sup> si ere biya ice de jurafi <sup>8</sup> te hontohon biya hamika bime ainu teni ubade isinjiha <sup>9</sup> emu gucu tutafi jime ofi <sup>10</sup> bi elhešeme aliyakiyame yabure jakade tuttu jime goidaha <sup>11</sup> tere gucu te amcame isinjimbio akūn <sup>12</sup> ere uthai tere gucu inu <sup>13</sup> sikse teni jihe <sup>14</sup> si bodoci ere biyai manashūn gemun hecen de isinambio isinarakūn <sup>15</sup> bi adarame bahafi sambi <sup>16</sup> abka gosifi beye elhe oci isinambio dere [...]

<sup>17</sup> meni ere coohiyan i gisun oci <sup>18</sup> damu coohiyan i bade teile baitalambi <sup>19</sup> i jeo<sup>‡</sup> be duleme nikan i bade jici <sup>20</sup> gubci yooni nikan i gisun ofi <sup>21</sup> we ya aika emu gisun fonjime ohode <sup>22</sup> yasa gadahūn i šame jabume muterakū oci <sup>23</sup> gūwa niyalma membe ai niyalma seme tuwambi <sup>24</sup> si ere nikan i bithe be tacirengge <sup>25</sup> eici sini cihai tacimbio <sup>26</sup> sini ama eniye taci sembio <sup>27</sup> meni ama eniye taci sehe kai <sup>28</sup> sini tacihangge udu aniya oho <sup>29</sup> mini tacihangge hontohon aniya funcehe

\* coohiyan = “Korea” ← Mandarin 朝鮮 [tʃʰawsjen].

† wang ging = “Wangging” (city) ← Mandarin 王京 [waŋkiŋ]; present-day Seoul, South Korea.

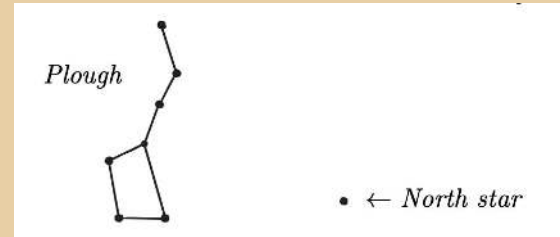
‡ i jeo = “Ijeo” (city) ← Mandarin 義州 [iʃsəw]; present-day Ŭiju, North Korea.

# How to Solve – (2) Matching

30. *afaha alban de kiceme yabufi hergen baharangge udu labdu bicibe baharakūngge inu bi*
31. *aika duleke aniya adali elgiyen bargiyaha bici gemu jeterengge bufi ulebumbihe*
32. *amba age sain menggun be bucina ere menggun umesi juken adarame baitalambi*
33. *be morin be tataha boode ulebume genembi si bithe araha manggi mini tataha boode benju*
34. *bi inu donjici ere aniya ubade usin jeku be asuru bargiyahakū sembi*
35. *bi sinde fulu inu burakū komso inu burakū sunja yan oci uthai tob seme teherere hūda*
36. *booi jasigan tumen yan i aisin salimbi*
37. *coko hūlaha manggi ilifi uthai yabuki*
38. *ere honin de enteke mangga hūda be gaiki seci funiyehe sain honin be udu hūda de uncambi*
39. *gemun hecen i jetere jaka hajio elgiyūn*
40. *gucuse ilicina coko ilanggeri hūlafi abka gereme hamika*
41. *jakūn fun menggun de emu hiyase šanyan bele sunja fun menggun de emu hiyase je bele*
42. *juwe fun menggun de emu ginggin honin yali bumbi sere*
43. *muse tubade dedume yoki aikabade duleme geneci cargi orin ba i sidende niyalma boo akū*
44. *niyengniyeri yacin sijigtyan šanyan ceri dorgi etuku be etumbi*
45. *orho turi gemu bi turi oci sahaliyan turi orho oci jeku orho*
46. *orho turi haji ba oci ilan duin jiha menggun be baitalambi*
47. *sain sirgei araha boro genggiyen bocoi suje boro ninggude aisin dingse hadafi etumbi*
48. *si tere kubun be da bade udu hūda de udaifi wang ging de genefi udu hūda de uncambi*
49. *si uttu balai gaire naka bi udu hūdašara niyalma waka ocibe ere suje hūda be gemu sambu*
50. *sini ere geren morin ihan dobori dari jetere orho turi uheri udu jiha baibumbi*
51. *suweni geren šusai dorgi de nikan i niyalma udu coohiyan i niyalma udu*
52. *ubaci gemun hecen de isinarangge amba muru sunja tanggū ba funcembi*
53. *uncara niyalma majige eberembu udara niyalma jai sunja yan be nonggime bu*

# How to Solve – (3) More matching!

66. **abka** ..... umesi den tumen jaka be elbehengge be, abka sembi.  
67. **alin** ..... den amba ningge be, alin sembi.  
68. **amargi** ..... hadaha usiha bisire ergi be, amargi sembi.  
69. **arašan aga** ..... erin de acabume agaha aga be, arašan aga sembi.  
70. **bolori** ..... nadan biya jakūn biya uyun biya tumen jaka bargiyara be, bolori sembi.  
71. **cecike** ..... yaya ajige gasha be, cecike sembi.  
72. **dosimbi** ..... bata be gidame julesi genere be, dosimbi sembi.  
73. **edun** ..... abka na i sukdu selgiyebume dara be, edun sembi.  
74. **elden** ..... šun biya usiha tuwai genggiyen yasa de fosoro be, elden sembi.  
75. **ergen** ..... beye i da sukdu be, ergen sembi.  
76. **gasha** ..... juwe bethe dethe funggala bisirengge be, gasha sembi.  
77. **hūda** ..... udara uncara jakai salire jiha menggun i ton be, hūda sembi.  
78. **ilha** ..... yaya orho moo i bongko ci fushume ilakangge be, gemu ilha sembi.  
79. **mergen** ..... sure dacun niyalma be, mergen sembi.  
80. **nadan usiha** ... amargi de bisire nadan amba usiha be, nadan usiha sembi.  
81. **nimaha** ..... muke de banjiha esihengge jergi jaka be, nimaha sembi.  
82. **niyalma** ..... abkai banjibuha tumen ergengge i dorgi umesi surengge be, niyalma sembi.  
83. **sahaliyan** ..... umesi yacin be, sahaliyan sembi.  
84. **se** ..... orhoda i cikten da i acan i sidende banjiha jalan be, se sembi.  
85. **šun** ..... ineggi tucifi gubci abka na de eldekengge be, šun sembi.  
86. **tanggū** ..... juwe susai be, tanggū sembi.  
87. **ulden** ..... alin jakarara onggolo tucire elden be, ulden sabumbi sembi.  
88. **usiha** ..... dobori abka de sarafi, emke emken i elden bisirengge be, usiha sembi.  
89. **wargi** ..... šun dosire ergi be, wargi sembi.



# How to Solve – (4) Numbers & Units

(b) Here are some Manchu sentences from a fictional maths textbook featuring conversion of units of measurement and basic operations (+, −, ×). Translate into English:

54. *ilan minggan ninggun tanggū jušuru, juwe ba, ishunde teherebumbi*

55. *orin hule i dorgici emu hule ilan moro hiyase be ekiyebuci, juwan jakūn hule uyun hiyase nadan moro hiyase funcembi*

56. *ilan tanggū nandanju dui ginggin de jakūn tanggū dehu juwe ginggin be nonggici, bahara ton udu*

57. *ninju dui fun be tofohon de kamcime bodoci, uyun yan ninggun jiha be bahambi*

Length 1 **li** = 1800 **chi** ( $\approx 576$  m)

Mass 1 **jin** = 16 **liang** ( $\approx 596.8$  g)

Volume 1 **shi** = 10 **dou** ( $\approx 103.5$  ℓ)

1 **chi** = 10 **cun** ( $\approx 0.32$  m)

1 **liang** = 10 **qian** = 100 **fen** ( $\approx 37.3$  g)

1 **dou** = 10 **sheng** ( $\approx 10.35$  ℓ)





# How to Solve – (7) Trading!

uncara jaka

– jeterengge

*šanyan bele ..... emu hiyase de nadan fun menggun  
coko yali ..... emu ginggin de emu jiha sunja fun menggun*

– etuku

*ilhangga sijigiyen ..... duin yan menggun  
sahaliyan tulergi etuku ..... ilan yan menggun  
šanyan kubun dorgi etuku ..... tofohon jiha menggun*

udara jaka

*coohiyen ci jihe orhoda ..... orin ginggin de juwan yan menggun  
aisin i jodoho suje ..... emu jušuru de sunja yan menggun  
funiyehhe sain honin ..... juwan juwe yan menggun*



# How to Solve – (8) Modern Manchu

100. bi bəl wənčal ba də bələ udaxə
101. bo molin jolum jixəniŋnə
102. əniŋ ja əxi odun
103. əniŋ sajn lod njam jixə
104. gimu xəčən də tuli əlin də nimiŋ gjak amba
105. jo əlin ilan əlin əl sigdən də bi bitk taxə
106. məsə čumaxə əmbadə bitk xolal ba də jom
107. owu dili xaəlbin innamə səjəniŋ aisə gwajdam
108. si siskə buda jəm wajəmə utka bo wul walin jixə
109. so učuluxə bo učulə ako
110. tələ sim maŋnə əmbadə fakjixə
111. təsə ələ bitki bə məndə buxo

112. mində jašixan bo!

113. tələ amba njam wakə

114. siskə majixə axə axəxə

115. bi iči dolxi otuku udaxə

116. əniŋ təsə alin də čičikə sawəxə

117. ənjə nimaxə jəm amə xoni jali jəm

118. bo čumaxə čičikal xotun də jom, so jawə də jom?

119. bi jwan ani oŋŋulo gimu kəčən də banjixə bixə

# Source

*Ch'öngö Nogöltae*  
清語老乞大/청어노걸대

*Imperially Commissioned Mirror of the  
Manchu Language*

御製清文鑑/*Han i araha Manju gisun i buleku bithe*

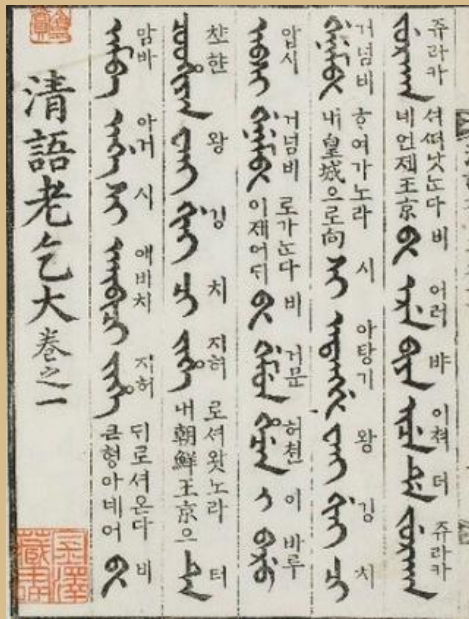
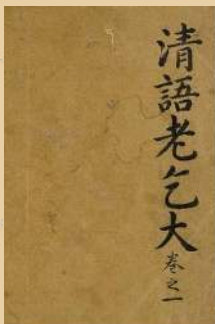




노걸대

# Nogöltae Series

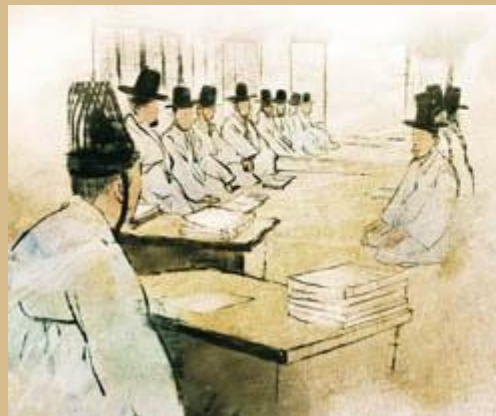
- One of the oldest foreign language textbooks in the world
- Important source on Middle Korean, Mandarin Chinese, Manchu & Mongolian



사역원(司譯院)

## *Sayögwön* — The Bureau of Interpreters

- Systematically trained language experts, translators, and diplomats
- Published texts on Chinese, Manchu, Mongolian, Japanese, and Ryukyuan



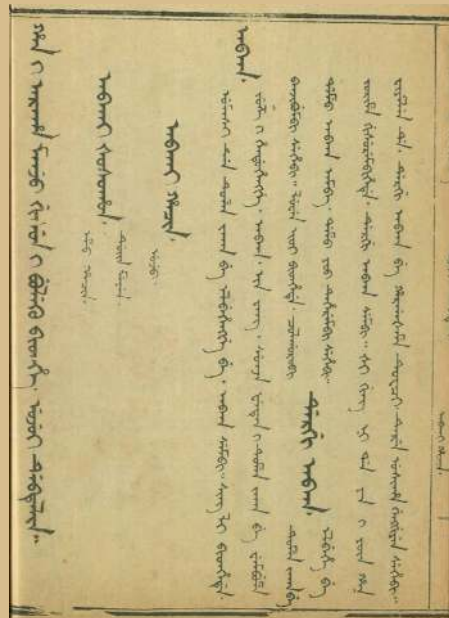


御製清文鑑

# Imperially Commissioned Mirror of the Manchu Language



- First comprehensive monolingual dictionary of its size in Asia
- The only dictionary that precedes this is French dictionary by *Académie française*
- Later developed into Pentaglot dictionary



# Spoken Manchu



Manchu speaker, Meng Xianxiao (孟宪孝)





# A Story of Shi Junguang



SIXTH  
TONE

Just like Chinese people throughout the country,

# Table of contents

◆ **01** ◆

## Introduction

You can describe the topic of the section here

◆ **02** ◆

## Reading

You can describe the topic of the section here

◆ **03** ◆

## Classification

You can describe the topic of the section here

◆ **04** ◆

## Analysis

You can describe the topic of the section here

◆ **05** ◆

## Review

You can describe the topic of the section here

◆ **06** ◆

## Considerations

You can describe the topic of the section here

◆ 01 ◆

# Steps to analyze a historical text

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You can enter a subtitle here if you need it

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# Steps to analyze a historical text

01

## Reading

It's actually a cold place

04

## Comment

It's the smallest planet

02

## Classification

It has a beautiful name

05

## Criticism

It's the biggest planet

03

## Analysis

It's the farthest planet

06

## Bibliography

Saturn is a gas giant



# Solution

	<i>n</i>		<i>ng</i>	<i>k</i>			<i>g</i>		<i>h</i>		<i>b</i>	<i>p</i>	<i>s</i>	<i>š</i>
	<i>V</i>	<i>C#</i>		<i>aoū</i>	<i>eu</i>	<i>C#</i>	<i>aoū</i>	<i>eu</i>	<i>aoū</i>	<i>eu</i>				
#_...	𐌲			𐌵	𐌶		𐌸	𐌹	𐌺	𐌻	𐌽	—	𐌾	𐌿
..._...	𐌲	𐌳	𐌴	𐌵	𐌶	𐌷	𐌸	𐌹	𐌺	𐌻	𐌽	—	𐌾	𐌿
..._#		𐌳	𐌴			—					—		—	—

	<i>t</i>			<i>d</i>		<i>l</i>	<i>m</i>	<i>c</i>	<i>j</i>	<i>y</i>	<i>r</i>	<i>f</i>		<i>w</i>
	<i>aio</i>	<i>eu</i>	<i>C#</i>	<i>aio</i>	<i>eu</i>							<i>ae</i>	<i>iou</i>	
#_...	𐌲	𐌳		𐌴	𐌵	𐌶	𐌷	𐌸	𐌹	𐌺	𐌻	—	𐌾	
..._...	𐌲	𐌳	𐌴	𐌵	𐌶	𐌷	𐌸	𐌹	𐌺	𐌻	𐌽	—	𐌾	
..._#			—			—	—				𐌽			

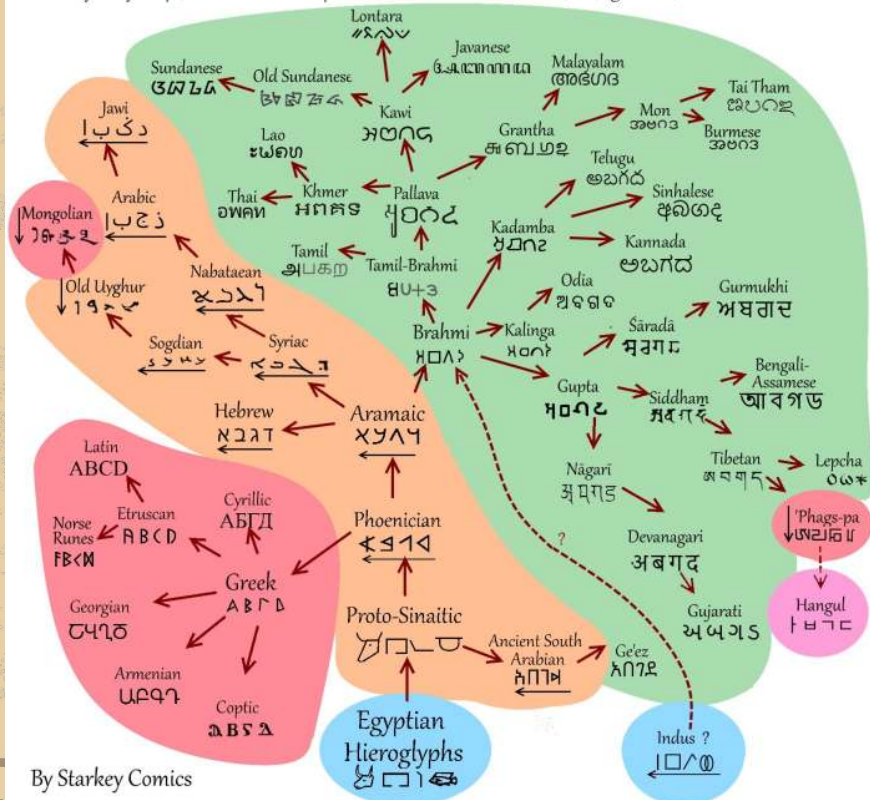
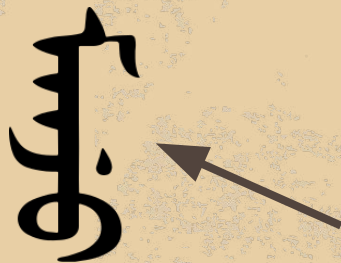
# Solution

	<i>a</i>			<i>e</i>		<i>i</i>				<i>o</i>			<i>u</i>		<i>ū</i>
#_...	𐌰			𐌱		𐌲				𐌳			𐌴		—
..._...	𐌶			𐌷		𐌸		𐌹		𐌺			𐌻		𐌼
..._#	𐌽	𐌾		𐌿	𐍀	𐍁		𐍂		𐍃	𐍄		𐍅	𐍆	𐍇
	~	<i>bp</i>	<i>kgh</i>	<i>bp</i>	~	<i>bp</i>	<i>kgh</i>	~	<i>V</i>	~	<i>bp</i>	<i>kgh</i>	<i>bp</i>	~	

# The ABCD Family Tree

- True Alphabets
- Featural Alphabets
- Abjads
- Abugidas
- Logograms

This infographic shows how 57 different scripts are descended from ancient Egyptian hieroglyphs. The colours show the type of script, and the red arrows show how the scripts are related. For scripts which are not read from left to right, the black arrows show the direction of writing. Where possible, letters corresponding to the A, B, C, and D symbols in the Latin alphabet are shown. In nearly every script, these letters correspond to sounds similar to the /a/, /b/, /g/ or /k/, and /d/ sounds.



# Solution

	1st person			2nd person		3rd person	
	SG	PL (excl)	PL (incl)	SG	PL	SG	PL
Nom	<i>bi</i>	<i>be</i>	<i>muse</i>	<i>si</i>	<i>suwe</i>	<i>i</i>	<i>ce</i>
Gen	<i>mini</i>	<i>meni</i>	<i>muse-i</i>	<i>sini</i>	<i>suweni</i>	<i>ini</i>	<i>ceni</i>
Acc	<i>mimbe</i>	<i>membe</i>	<i>muse-be</i>	<i>simbe</i>	<i>suwembe</i>	<i>imbe</i>	<i>cembe</i>
Dat	<i>minde</i>	<i>mende</i>	<i>muse-de</i>	<i>sinde</i>	<i>suwende</i>	<i>inde</i>	<i>cence</i>
Abl	<i>minci</i>	<i>menci</i>	<i>muse-ci</i>	<i>sinci</i>	<i>suwenci</i>	<i>inci</i>	<i>cenci</i>

# Solution

	this		that	
	SG	PL	SG	PL
Nom	<i>ere</i>	<i>ese</i>	<i>tere</i>	<i>tese</i>
Gen	<i>erei</i>	<i>esei</i>	<i>terei</i>	<i>tesei</i>
Acc	<i>erebe</i>	<i>esebe</i>	<i>terebe</i>	<i>tesebe</i>
Dat	<i>erede</i>	<i>esede</i>	<i>terede</i>	<i>tesede</i>
Abl	<i>ereci</i>	<i>eseci</i>	<i>tereci</i>	<i>tesede</i>

# Solution

<b>Nom</b>	<i>∅</i>	subject
<b>Gen</b>	<i>-i / i</i>	possession; instrumental
<b>Acc</b>	<i>be</i>	object
<b>Dat</b>	<i>de</i>	Location, direction, quantity/price
<b>Abl</b>	<i>ci</i>	ablative ('from ...') cf. ↔ <i>-i baru</i> ('to ...')

# Solution

← Non-final →					
		← Clause-final →			
<i>converbs</i>		<i>gerunds</i>		<i>moods</i>	
<i>-me</i>	imperfect	<i>-ra/re/ro</i>	imperfect	<i>-mbi</i>	declarative
<i>-fi</i>	perfect	<i>-ha/he/ho</i>	perfect	<i>-ki</i>	desiderative
<i>-ci</i>	conditional	<i>-ka/ke/ko</i>		<i>-cina</i>	optative

# Verb morphology

<b><i>gisure-</i></b>	"to speak"		
<b><i>gisurembi</i></b>	I speak, I am speaking, I will speak	<b><i>gisure</i></b>	[You] speak!
<b><i>gisurere</i></b>	[thing] to speak, speaking [person], [in order to] speak	<b><i>gisureki</i></b>	Let's speak
<b><i>gisurehe</i></b>	I spoke, I have spoken, [as] I spoke	<b><i>gisurecina</i></b>	Could you speak?
<b><i>gisureme</i></b>	[go] to speak, speak while [doing something]	<b><i>gisurengge</i></b>	speech, that you're speaking, your speech
<b><i>gisurefi</i></b>	speak and then [do something]	<b><i>gisurerakū</i></b>	I don't speak, I will not speak
<b><i>gisureci</i></b>	If I speak	<b><i>gisurehakū</i></b>	I did not speak, I have not spoken
		<b><i>gisurebumbi</i></b>	I make you speak.

# Converbs: *-me* (imperfect)

feed            go

*be morin be tataha boode ulebu**me** genembi*

Ние ще отидем да нахраним конете в хана

Šli bomo nahranit konje v gostilno

Půjdeme nakrmit koně [mn. č.] v hostinci

My pójdziemy nakarmić konie w gospodzie

Ми підемо годувати коней у корчмі

Мы пойдём кормить лошадей в гостинице

Mēs iesim barot zirgus viesnīcā

Me lähme kõrtsi hobuseid söötma

Menemme majataloon hevostia ruokkimaan

Vi ska gå och mata hästarna vid värdshuset

Wir gehen, um die Pferde in die Herberge zu füttern

We zullen de paarden voederen bij de herberg

We will go to feed the horses at the inn

Elmegyünk etetni a lovakat a fogadóba

Vom merge să hrănim caii la han

Nous allons nourrir les chevaux à l'auberge

Iremos a alimentar a los caballos a la posada

Iremos alimentar os cavalos no albergue

우리는 말을 숙소에 밥먹이러 가겠습니다

私たちは旅館で馬にエサをあげるために行きます

我们到住处去喂马

我們去住處餵馬

Mehmanxanada atları yedizdirməyə gedəcəyik

# Converbs: *-fi* (perfect)

rivet wear

*...ninggude aisin dingse **hadafi** **etumbi***

занитваме златни брошки отгоре и [ги] носим  
na vrh zapičimo zlate broške in [jih] nosimo  
nýtujeme zlaté brože na vrch a nosíme [je]  
przypinamy na wierzchu złote brosze i nosimy  
[ми] клепаємо золоті брошки згори та носимо [їх]  
[мы] клепаем золотые броши поверх и носим [их]  
[mēs] piespraužam zelta brošas [tām] virsū un nēsājam [tās]  
kübaratele kinnitame peale kuldsed prossid ja kanname [neid]  
hattuihin kiinnitämme kultaiset rintaneulat ja pidämme [niitä]  
[vi] fäster guldbroscher ovanpå och klär [oss] i [dem]  
[wir] nieten Goldbroschen darauf und tragen [sie]  
we maken gouden broches erop vast en dragen [ze]

[we] rivet gold brooches on top and wear [them]  
arany broszokat szegecselünk a tetejükre és viseljük  
prindem broșe de aur deasupra și [le] purtăm  
[nous] rivetons des broches d'or sur le dessus et [les] portons  
clavamos broches de oro en la parte superior y [los] llevamos  
puestos  
fixamos broches de ouro no topo e [os] usamos  
위에 금 증자 [=장식의 일종]를 박아서 씁니다  
上に金の飾り物を打ち込んで使います  
我们在上头钉了金别针戴着  
我們把金色領針釘在上頭戴著  
üstüne qızıl broşlar pərçimləyirik və taxırıq

# Converbs: -ci (conditional)

body sound is arrive

*abka gosifi beye elhe oci isinambi dere*

Ако небесата са благосклонни и телата [ни] са здрави, ще пристигнем

Če se [nas] nebesa usmilijo in bodo [naša] telesa zdrava, bomo prispeli

Když se Nebesa smilují, a [naše] těla budou zdravá, dorazíme

Jeśli Niebiosa się zmiłują i [nasze] ciała będą zdrowe, dotrzemy

Якщо небеса помилують, і [наші] тіла будуть здорові, [ми] приїдемо

Если небеса помилуют, и [наши] тела будут здоровы, [мы] приедем

Ja debess apžēlosies, un [mūsu] ķermeņi būs veseli, [mēs] atbrauksim

Kui taevas on armulik ja kehad on terved, jõuame

Jos taivas on armollinen ja kehot ovat terveitä, saavumme

Om Himlen förbarmar sig [över oss], och [våra] kroppar är sunda, så

anländer [vi]

Wenn Himmel Erbarmen [mit uns] hat, so dass [unsere] Körper gesund

sind, werden [wir] ankommen

Als de Hemel erbarmen [met ons] heeft, en [onze] lichamen dus

gezond zijn, zullen [we] aankomen

If Heaven has mercy [on us], and [our] bodies are sound, [we] will arrive

Ha az ég megkegyelmez nekünk, és ép a testünk, meg

fogunk érkezni

Dacă Cerul are milă [de noi], iar corpurile [noastre] sunt

sănătoase, vom ajunge

Si le Ciel prend pitié [de nous], et [nos] corps sont sains,

[nous] arriverons

Si los Cielos se apiada [de nosotros], y [nuestros] cuerpos

están sanos, llegaremos

Se os Céus tiver piedade [de nós], e [nossos] corpos

estiverem sãos, chegaremos

하느님이 가없이 여겨 몸이 평안하면 도착할 것입니다



神様が慈してくださり、体が元気なら到着できるでしょう

上天怜悯，身体安好的话，会到吧

上天憐憫，身體安好的話，能到吧

Çənnət bizə rəhm edərsə və beləliklə bədənlərimiz

sağlamdırsa, çatacağıq

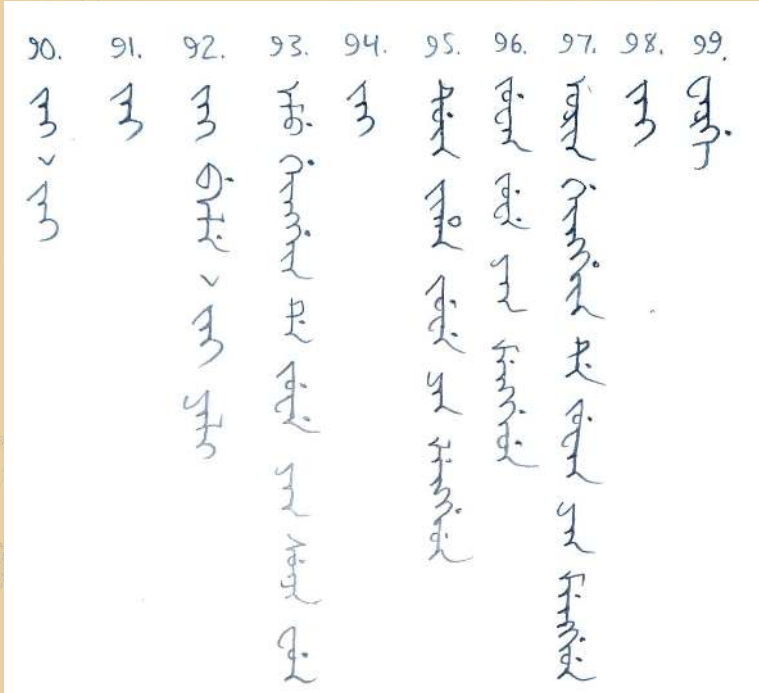


# Best Calligraphy Award

*(not an actual award)*

# Best Calligraphy Award

(not an actual award)



Canada Moose



# Our Team





*baniha*



**XIX International Linguistics Olympiad**  
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