

Example 1 - just dictionary

Here are few sentences with their English translations. Translate given examples and write the rules that you observed from the given sentences.

- | | |
|-------------------------|-----------------------------|
| 1. Makeri kawo yaro. | The smith brought the boy. |
| 2. Yaro kawo makeri. | The boy brought the smith. |
| 3. Mace hura wuta. | The woman started the fire. |
| 4. Yarinye dawo. | The girl returned. |
| 5. Makeri kawo yarinye. | The smith brought the girl. |

Translate into English:

- | | |
|----------------------|-----------------------------|
| 1. Mace kawo yaro. | The woman brought the boy |
| 2. Makeri dawo wuta. | The smith returned the fire |

Translate from English:

- | | |
|------------------------------|----------------|
| 1. The boy started the fire. | Yaro hura wuta |
| 2. The smith returned. | Makeri dawo |

Rules observed:

Word order: SVO

Nouns not affected by position in the sentence, this is just vocabulary/dictionary

Words for boy (Yaro) and girl (Yarinye) may be related, but there's not enough data really to say this

Example 2 - word order

Here are few phrases with their English translations. Translate given examples and write the rules that you observed from the given phrases.

- | | |
|-----------------|----------------|
| 1. nimi a gbomu | snake's mouse |
| 2. lende a kai | man's ship |
| 3. kafa a kai | man's shoulder |
| 4. lende a nimi | mouse's ship |
| 5. ja a nimi | mouse's eye |
| 6. keni a gbomu | snake's tongue |

Translate into English:

- | | |
|------------------|--------------|
| 1. ja kai | man's eye |
| 2. lende a gbomu | snake's ship |

Translate from English:

- | | |
|----------------|-------------|
| 1. man's snake | gbomu a kai |
| 2. snake's eye | ja a gbomu |

Rules observed:

"s" = "a"

Genitive / ownership = "a"

Word order: thing possessed - owner – eg 1: mouse of the snake?

Example 3 - 1 rule

Here are few phrases with their English translations. Translate given examples and write the rules that you observed from the given phrases.

- | | |
|-----------------|----------------|
| 1. nimi a gbomu | snake's mouse |
| 2. lende a kai | man's ship |
| 3. kafa kai | man's shoulder |
| 4. lende a nimi | mouse's ship |
| 5. ja nimi | mouse's eye |
| 6. keni gbomu | snake's tongue |

Translate into English:

- | | |
|------------------|--------------|
| 3. ja kai | man's eye |
| 4. lende a gbomu | snake's ship |

Translate from English:

- | | |
|----------------|-------------------|
| 3. man's snake | gbomu a kai |
| 4. snake's eye | ja gbomu [no 'a'] |

Rules observed:

"s" = "a" in certain cases

Genitive / ownership = "a" when the noun is a body part, sometimes called inalienable possession

Word order: thing possessed – owner, cf English X of the Y -= Y's X

Example 4 - categories

Here are few phrases with their English translations. Translate given examples and write the rules that you observed from the given phrases.

- | | |
|----------------------|---------------|
| 1. bangul yara | man |
| 2. bangun yabu | mother |
| 3. bangun waymin | mother in law |
| 4. bangu yila | feather |
| 5. bangun malayigara | scorpion |
| 6. bangu gurugu | drink |
| 7. bangun bima | snake |
| 8. bangul gubimbulu | waiter |
| 9. bangu garan | smoke |
| 10. bangun dunan | poison ivy |
| 11. bangu juga | sugar |
| 12. bangu diban | stone |
| 13. bangul binjirin | chameleon |
| 14. bangul gula | koala |
| 15. bangul bargain | kangaroo |

Fill in the blanks:

- | | |
|------------------------------|-----------|
| 1. bangun __mugunanja | aunt |
| 2. bangu __munga | sound |
| 3. bangul __bayimbam | butterfly |
| 4. bangun __amo | weapon |
| 5. bangul __nalnga | boy |

Rules:

Root word: bang (indefinite article or "a")

Endings:

ul ending– male, harmless

un - female.dangerous (!)

u – inanimate

Rough work table to see things clearly:

Root: bang

bang-ul yara	man
bang-ul gubumbulu	waiter
bang-ul binjirin	chameleon
bang-ul gula	koala
bang-ul bargain	kangaroo
bang-un yabu	mother
bang-un waymin	mother in law
bang-un malayigara	scorpion
bang-un bima	snake
bang-un dunan	poison ivy
bang-u yila	feather
bang-u gurugu	drink
bang-u garan	smoke
bang-u juga	sugar
bang-u diban	stone

Example 5 - endings for sg/pl

Here are few phrases with their English translations. Translate given examples and write the rules that you observed from the given phrases.

- | | |
|---------------------------|-------------------|
| 1. ho tu cyriu onos | owner's donkey |
| 2. hoi tu emporu adelphoi | trader's brothers |
| 3. hoi ton onon emporoi | donkeys' traders |
| 4. hoi ton cyrion hyioi | owners' sons |
| 5. ho ton hyion dulos | sons' slave |
| 6. hoi ton dulon cyrioi | slaves' owners |
| 7. ho ton adelphon oicos | brothers' house |
| 8. ho tu oicu cyrios | house's owner |

Translate from English:

- | | |
|--------------------|-----------------------|
| 1. traders' houses | hoi ton emporon oicoi |
| 2. slave's donkeys | hoi tu dulu onoi |

Translate into English:

- | | |
|-----------------------|-----------------|
| 1. ho tu onu emporos | donkey's trader |
| 2. ho ton dulon dulos | slaves' slave |

Rough table to see occurrence:

Ho tu	owner's donkey
Ho tu	house's owner
Ho ton	sons' slave
Ho ton	brothers' house
Hoi tu	trader's brothers
Hoi ton	donkeys' traders
Hoi ton	owners' sons
Hoi ton	slaves' owners

Rough work table to see things clearly:

cyri-u	empor-u		oic-u		
cyri-on		adelph-on		dul-on	hyi-on
cyri-oi	empor-oi	adelph-oi			hyi-oi
cyri-os		on-os	oic-os	dul-os	

SOLUTION:

Rules:

- word order:
Ho / Hoi, tu / ton owner, thing owned
- Ho is in phrases where the 'thing owned' is singular.
Hoi is in phrases where the 'thing owned' is plural.
- Tu is in phrases where the owner is singular.
Ton is in phrases where the owner is plural.
- Endings on nouns

-u	- owner is singular
-on	- owner is plural
-oi	- thing owned is plural
-os	- thing owned is singular

Vocabulary:

donkey	on-
owner	cyri-
trader	empor-
brother	adelph-
son	hyi-
slave	dul-
house	oic-

Example 6

Below are few sentences with their English translations. Write the rules and the dictionary from these examples and translate few sentences.

Hiiri teatteressa on.	Cow is in theatre.
Sikri poydalta hyppaa.	Hen jumps off table.
Hiiri poydalla istuu.	Bull sits on table.
Sikri liiterissa istuu.	Hen sits in workshop.
Hiiri liiterilta hyppaa.	Bull jumps off workshop.

Translate:

Bull sits on theatre.
Rooster jumps off theatre.

Solution

Translations:

Bull sits on theater.	Hiiri teatterella istuu
Rooster jumps off theater.	Sikri teatterelta hyppaa

Dictionary:

hiiri = cow, bull
sikri = hen, rooster
teattere = theater
poyda = table
liiteri = workshop
on = is (to be)
hyppaa = jumps (to jump)
istuu = sits (to sit)

Rules:

Endings (these can go under dictionary or under rules):

-ssa = in
-lta = off
-lla = on

- Word order: who, where, what is doing
(Alternative word order description: subject, location or object, verb)
- Word for location gets an ending for proposition (see above the list of endings with their meanings) or alternative phrasing is "how the object is used" (off table, on table)
- They don't distinguish between animal gender.
(Alternative: They use the same word for male and female.)

Rough work table to help see things clearly:

liiteri	-ssa	in workshop
teattere	-ssa	in theatre
liiteri	-lta	off workshop
poyda	-lta	off table
poyda	-lla	on table

Hen, rooster – Sikri
cow, bull – Hiiri
sits – istuu
jumps – hyppaa
is – on

Example 7

Below are few sentences with their English translations. Write the rules and the dictionary from these examples and translate few sentences.

Mi leg kabeag.	This was clean dish.
Mir Aneešt.	This will be Anna.
Mi ien šhuahti.	This is green table.
Mi ien kabešt.	This will be clean table.
Mir kiel phaw.	This is strict boy.
Mi kel šhuahtiešt.	This will be green city.

Translate:

This is Dima.
This was strict Anna.
This was city.

Solution

Translations

This is Dima.
This was strict Anna.
This was city.

Mir Dima.
Mir Ane phaw^{eag}
Mi ke^{eag}

Dictionary

Ane = Anna
leg = dish
ien = table
kiel = boy
kel = city
kab = clean
šhuahti = green
phaw = strict
mi, mir = this

Rules

Endings (these can go under dictionary or under rules):

-^{eag} = past tense
-^{ešt} = future tense

- Word order: mi/mir, noun, adjective
(alternative descriptions for mi/mir are also correct: this, pronoun)
- mi is used for objects, mir is used for people
- The last word gets ending for tense (see above for the list). Present tense has no ending.
(alternative description for this rule: adjective gets the tense ending. If there is no adjective then the noun gets the ending. Other alternatives also exist)

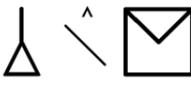
Rough work table to see things clearly:

Mi leg kabeag	This was clean dish
Mi ien shuahti	This is green table
Mi kel shuahtiest	This will be green city
Mi ien kabest	This will be clean table
Mir Aneest	This will be Anna
Mir Kiel phaw	This is strict boy
Shuahti	- is green
Shuahti	-est - will be green
Kab	-est - will be clean
Ane	-est - will be Anna
Kab	-eag - was clean
kel – city	
ien – table	
leg – dish	
kiel - boy	
phaw - strict	
shuahti – green	
clean – kab	

Example 8 - symbol = word

Here you have some sentences written in foreign script and with Latin letters. Figure out what each foreign symbol means and write any rules that you observe.

Man is writing a letter. 

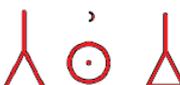
Woman is writing a letter. 

Man wrote a letter. 

Man sees a letter. 

Write with foreign symbols:

Woman saw a letter. 

Man saw a woman. 

What kind of writing system is this (what each symbol represents), what is the direction of writing, are there any additional rules for symbols?

Rules

Writing system type: Symbol = word

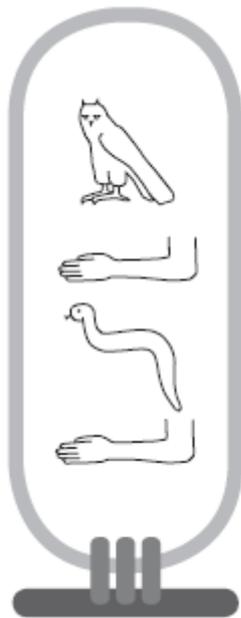
Direction – L-R

Word order: SVO

Present tense - hat ^, past tense ' big apostrophe/comma

Example 9 - symbol = letter

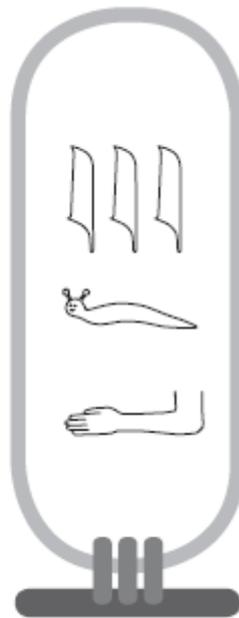
Here are written the names Iva, Maja, Vid. Which is which? What kind of writing system is this (what each symbol represents), what is the direction of writing, are there any additional rules for symbols?



Maja



Vid



Iva

Rules

Writing system: top to bottom (i tells you direction)

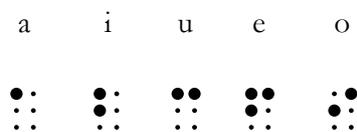
Each symbol reps a letter

No additional rules?

Japanese Braille

This is another writing system problem, but in this case it is not an alphabet. The word *karaoke*, in tenji, it has four characters, which may lead us to think that each character represents a syllable (ka-ra-o-ke). Counting syllables of the other words can confirm that tenji is a *syllabary*.

Inside the syllable structure, however, we must understand how consonants and vowels are represented. From “karaoke” can see that **ka** and **ra** have the same upper-left dot (⠠), differing only on the second dot position; furthermore, **ka** and **ke** have the same second dot position (down-right – ⠤). This is confirmed for there is a word starting with **a** (atari) and word **f** indeed starts with ⠠. So the vowels are represented in the three dots at the upper-left part of the diagram:



The other three dots represents the variety of consonants. So the answers are:

- | | |
|--|---|
| <p>1.</p> <p>a. haiku b. sake</p> <p>c. katana d. kimono</p> <p>e. koi f. atari</p> | <p>2.</p> <p>g. karate h. anime</p> <p>3.</p> <p>i. ⠠⠠⠠⠠⠠⠠ j. ⠠⠠⠠⠠</p> |
|--|---|

Lalana Chinantec

This is another syntax problem, in a model we call *Rosetta Stone*: some sentences are presented with translations and, with that, we can understand part of the grammar of the language.

In this case, the word order is not so obvious. We can start by marking the substantives: corn (x4) and pineapples (x2). After this, we can easily identify the pronoun “my” (x3). We can even paint the words, like this:

- | | |
|--|---|
| <p>kalakwa: kwi: li:?</p> <p>miladʒö mo:h kya</p> <p>li:ʔ kalane kwi: kwa: kya</p> <p>ʒö kalaro:h mo:h ne kya</p> <p>kaladʒö kwi:</p> <p>milakwa: kwi:</p> | <p>The beautiful corn grew.</p> <p>My pineapples have turned out well.</p> <p>My tall corn yellowed beautifully.</p> <p>My yellow pineapples ripened well.</p> <p>The corn turned out well.</p> <p>The corn has grown</p> |
|--|---|

Then the verbs. From the last two sentences, it is obvious that they have internal structure: verbs in the past simple receive **kala-**; verbs in the present continuous receive **mila-**.

The adjectives come after the substantives, as in **mo:h ne** / pineapple yellow and **kwi: li:ʔ** / corn beautiful. To use an adjective as a verb, one just have to use a verb prefix, as in **ne – kalane** / yellow – yellowed and **kwa: – kalakwa: – milakwa:** / tall – grew – has grown.

The adverb comes in the beginning of the sentence, as in **li:ʔ** / beautifully and **ɔʒö** / well. (Don't mistake: the "well" in *turned out well* is part of the verb). Adverbs, adjective and verb nucleus have all the same form.

So the general word order is: (Adverb) Verb – Subject (Adjective) (Possessive)

And the answers are:

1. **li:ʔ** is beautiful(ly). 2. **ro:h** is ripe.

3.

a) **kalali:ʔ mo:h ɔʒö** PAST-(become beautiful) **pineapples** (good/well)ADJ

b) **ɔʒö mila ne mo:h ro:h kya** (well)ADV [PRES.PERF-(yellow) **corn** (ripe)ADJ (my)]

4.

c) The yellow corn has ripened.

d) The corn grew beautifully.

Lalana Rough Work Example and Solution

Dictionary

kwi: corn

mo:h pineapples

kya my

li:ʔ Beautiful and beautifully

dzo well

ro:h ripe

kwa: tall

Rules

Verbs:

Past simple receive prefix kala-
(kalakwa, kaladzö, kalaro:h)

Present continuous receive mīla-
(mīlakwa, mīladzö)

Adjectives:

Adjectives come after the word they describe (kwi: li:ʔ / *corn beautiful*) (mo:h ne / *pineapple yellow*)

Using adjective as a verb – add a verb prefix e.g (ne – kalane / *yellow – yellowed*) and
(kwa/kalakwa/mīlakwa – tall/grew/has grown)

Adverbs:

Come at the beginning of the sentence (li:ʔ / *beautifully*) Word order:

(Adverb) Verb – Subject (Adjective) (Possessive)

Answers:

1. li:ʔ is beautiful(ly). 2. ro:h is ripe.

3. a) kalali:ʔ mo:h dʒö PAST-(become beautiful) pineapples (good/well)ADJ

b) dʒö mīlane mo:h ro:h kya (well)ADV [PRES.PERF-(yellow) corn (ripe)ADJ (my)]

4. c) The yellow corn has ripened.

d) The corn grew beautifully.

Rough Work Table:

Prefixes:

Kala-kwa: grew (past simple)

kwa: tall

Mila-kwa: has grown (present continuous) / growing

Kala-dzo turned out well (past simple)

dzo well

Mila-dzo have turned out well (present continuous) / done well

Kalaro:h ripened (past simple)

[ro:h would be “ripe”]

Kala-ne yellowed (past simple)

ne yellow

[Mila-ne would be ‘has yellowed’ (present continuous)]