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.
- 2. Yaro kawo makeri.
- 3. Mace hura wuta.
- 4. Yarinye dawo.
- 5. Makeri kawo yarinye.

The smith brought the boy. The boy brought the smith. The woman started the fire. The girl returned. The smith brought the girl.

Translate into english:

- 1. Mace kawo yaro.
- 2. Makeri dawo wuta.

Translate from english:

- 1. The boy started the fire.
- 2. The smith returned.

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 mouse's eye
- 5. ja a nimimouse's eye6. keni a gbomusnake's tongue

Translate into english:

- 1. ja a kai
- 2. lende a gbomu

Translate from english:

- 1. man's snake
- 2. snake's eye

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

mouse's ship

mouse's eye

snake's tongue

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

Translate into english:

- 1. ja kai
- 2. lende a gbomu

Translate from english:

- 1. man's snake
- 2. snake's eye

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 bargan	kangaroo
Fill in the blanks:	
1 mugunanja	aunt

1.	mugunanja
2.	munga
3.	bayimbam
4	0 <b>m</b> 0

- 4. \_\_\_\_\_ amo 5. \_\_\_\_\_ nalnga
- sound butterfly weapon boy

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
- 2. hoi tu emporu adelphoi
- 3. hoi ton onon emporoi
- 4. hoi ton cyrion hyioi
- 5. ho ton hyion dulos
- 6. hoi ton dulon cyrioi
- 7. ho ton adelphon oicos
- 8. ho tu oicu cyrios

trader's brothers donkeys' traders owners' sons sons' slave

owner's donkey

slaves' owners brothers' house

house's owner

Translate from english:

- 1. traders' houses
- 2. slave's donkeys

Translate into english:

- 1. ho tu onu emporos
- 2. ho ton dulon dulos

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

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

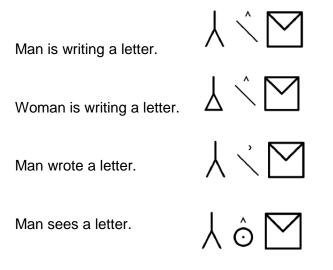
Bull sits on theatre. \_\_\_\_\_ Rooster jumps off theatre. \_\_\_\_\_

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

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

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

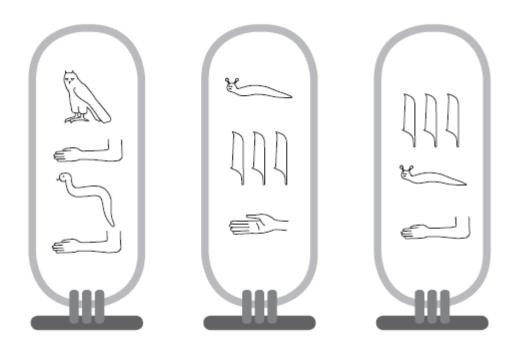
Here you have some sentences written in foreign script and with latin letters. Figure out what each foreign symbol means and write any rules that you observe.



Write with foreign symbols:

Woman saw a letter. Man saw a woman.

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?



# Japanese Braille



**Braille** is a tactile writing system, based on a series of raised dots, that is widely used by the blind. It was invented in 1821 by Louis Braille to write French, but has since been adapted to many other languages. English, which uses the Roman alphabet just as French does, required very little adaptation, but languages that do not use the Roman alphabet, such as Japanese, Korean, or Chinese, are often organized in a very different manner!

To the right is a Japanese word written in the *tenji* ("dot characters") writing system. The large dots represent the raised bumps; the tiny dots represent empty positions.

karaoke

1. The following *tenji* words represent *atari*, *haiku*, *katana*, *kimono*, *koi*, and *sake*. Which is which? You don't need to know either Japanese or Braille to figure it out; you'll find that the system is highly logical.

a	• · • · • • · · • • · · ·	b	• · • • · • • • · • •
C		d	6 · · 6 · 6 • · 60 • · · 6 • 6 • ·
e		f	•••••••••
2. What are the fo	ollowing words?		
g		h	• · • · • • • • • • • • • • • • • • • •
3. Write the follo	owing words in <i>tenji</i> characters	s:	
i. samurai		j. miso	

Problem by Patrick Littell for the North American Computational Linguistics Olympiad 2009

# Lalana Chinantec

Lalana Chinantec is a language spoken by approximately 10,000 people who live in the Oaxaca region of Mexico. In the following orthography a colon (:) marks a long vowel, and the **?** symbol marks a glottal stop (like the sound in the middle of uh-oh).

kalakwa: kw <del>i</del> : li:?	The beautiful corn grew.
mɨlaʤö mo:h kya	My pineapples have turned out well.
li:? kalane kw <del>i</del> : kwa: kya	My tall corn yellowed beautifully.
ூö kalaro:h mo:h ne kya	My yellow pineapples ripened well.
kaladjö kwi:	The corn turned out well.
milakwa: kwi:	The corn has grown.

1. What does the word *li:*? mean?

2. What does the word *ro:h* mean?

3. Translate the following sentences into Lalana Chinantec:

a) The good pineapples became beautiful.

b) My ripe corn has yellowed well.

4. Translate the following sentences into English:

c)	mɨlaroːh kwɨ: ne	
d)	li:? kalakwa: kw <del>i</del> :	

Problem by Rachel Nordlinger for the Australian Computational and Linguistics Olympiad 2008 Data from Merrifield, W. et al (2003). *Laboratory Manual for Morphology and Syntax*, 7th edition. Dallas: SIL International.