

2010 Solutions

(B) Say it in Abma (1/2)

In order to work out which word in the above sentences encodes the meaning associated with the individual words in the English translation we need to compare sentences with common meanings. For example 'water' appears in the translation of a., b., i., and k. Since 'runs' appears in e., j., and k. we can conclude that *sileng* = 'water' and *mworob* = 'runs'. This then allows us to conclude that *mwamni* (a. & b.) = 'drink', *mwabma* (e. & i) = 'here', *mwelebte* (i) = 'carry (as one carries water)', *mwesak* (h. & j.) = 'up'. We can deduce from these examples that the word order is virtually the same as in English.

A comparison of c. and d. shows us that *nutsu* = 'child'. A comparison of f. and g. shows us that *mwisib* = 'down' and also 'go down' or 'move downwards'. Since we know that f. is literally 'pulls + 'Mabontare' + 'down', we can deduce that *tela* (h.) = 'axe' and *mweselkani* (h.) = 'carry (as one does an axe)'. An analysis of i. shows us that the meaning encoded by English 'bring' is expressed by two words in Abma: *mwelebte* 'carry as one does water' (since it is not the same verb as in h. which involves carrying an axe) followed by the word *mwabma* translated as 'here' in e. We can analyse the meaning of English 'bring' as being made up of the meaning of 'carry' plus the idea of 'moving towards speaker's location', i.e., 'here'.

A comparison of b. and d. shows that *mwatbo* = 'keep doing something', and that (as in English) it immediately precedes the other verb in the same sentence.

The words/verbs which express directional meanings, 'up', 'down', 'here' follow the other verb (d.) or the verb+Object noun (b.)

Having worked out the meaning of each word and the order in which words must combine in sentences, we can accurately translate the English sentences in 1 and the Abma sentences in 2.

While analysing the data it is very useful to create a dictionary as one goes along. Our analysis of sentences a. to k. above gives us the following results:

<i>mwamni</i>	drink	<i>mwisib</i>	(go) down
<i>mwatbo</i>	keep (doing)	<i>mwesak</i>	(go) up
<i>mwerava</i>	pull	<i>mweselkani</i>	carry (of axe)
<i>mworob</i>	run	<i>mwelebte</i>	carry (of water)
<i>mwegau</i>	grow	<i>sileng</i>	water
<i>mwegalgal</i>	crawl	<i>nutsu</i>	child
<i>mwabma</i>	(go) here, approach	<i>tela</i>	axe

We can now refer to this word list plus the words given in the table below when constructing our answers to Questions 1 and 2.



2010 Solutions

(B) Say it in Abma (2/2)

	ENGLISH	ABMA
1.	The teacher carries the water down.	<i>Sesesrakan mweselkani sileng mwisib.</i>
2.	The child keeps eating.	<i>Nutsu mwatbo mwegani.</i>
3.	Mabontare eats taro.	<i>Mabontare mwegani bwet.</i>
4.	The child crawls here.	<i>Nutsu mwegalgal mwabma.</i>
5.	The teacher walks uphill.	<i>Sesesrakan muhural mwesak.</i>
6.	The palm-tree keeps growing downwards.	<i>Butsukul mwatbo mwegau mwisib.</i>
7.	He goes up.	<i>Mwesak.</i>

	ABMA	ENGLISH
1.	<i>Sesesrakan mweselkani bwet mwabma.</i>	The teacher carries the taro here/in this direction.
2.	<i>Sileng mworob mwisib.</i>	The water runs down.
3.	<i>Mwelebte bwet mwesak.</i>	He brings the taro up.



Cognates

Linguists group languages into families based on their historical relationship. English belongs to the Indo-European language family along with several hundred other languages and dialects. The Indo-European family of languages is further divided into branches that include Germanic languages (e.g., English, German, and Norwegian), Indo-Iranian languages (such as Hindi, Bengali, or Farsi), and Romance languages (languages descended from Latin such as French, Italian, and Romanian). All these languages share some common vocabulary. Languages in the same branch generally share a greater deal of their vocabulary. Words that are historically related in different languages are called cognates.

Many words in English are cognates that also appear in Romance languages. These languages are also related to each other. The list below includes translations of a number of English words into some number of Romance languages.

cantare, escola, stella, étoile, estrela, étudiant, scuola, escuela, cantar, studiare, école, estrella, estel, estudar, chanter

Questions

1. How many different English words do the fifteen words above correspond to? Hints: Cognates are likely to have somewhat similar spelling. Try to lay out the words in a grid. Note that the same word may appear with identical spelling in more than one language.
2. How many languages are included in the sample?
3. Can you try and translate each of these words into English (knowing that some words in English are also cognates to the words above)?
4. "Escuela" is one of the words in Spanish on the list above. How do you say "étudier" in Spanish (that word is not on the list)? Try to get as close as possible to the correct translation, even if you cannot get it quite right. Explain how you arrived at the solution.

Answers

1. four words

2. star, study, school, sing (chant)

star: stella, étoile, estrella, estel, estrela

study: studiare, étudier, estudiar, estudar

school: scuola, école, escuela, escola

sing: chanter, cantar, cantare

3. five languages (Spanish, French, Catalan, Portuguese, and Italian)

It should be apparent that there are five words for "star" - so at least five languages.

4. The correct answer is "estudiar" (which, incidentally, is also the right word in Catalan).

Hawaiian

Puzzle by V. Belikov. English adaptation by Valentin Vydrin and Thomas E. Payne

Hawaiian is a Polynesian language, spoken fluently by about 2000 people.

The following Hawaiian sentences, with their English translations, are about a girl named Mele and a boy named Keone:

- | | |
|-----------------------------------|--------------------------|
| 1. He has seven elder brothers. | Ehiku ona kaikuaana. |
| 2. Mele has one brother. | Ekahi o Mele kaikunane. |
| 3. Keone has one younger brother. | Ekahi o Keone kaikaina. |
| 4. Mele has no elder sisters. | Aohe o Mele kaikuaana. |
| 5. Keone has no sisters. | Aohe o Keone kaikuahine. |
| 6. I have one canoe. | Ekahi ou waa. |
| 7. Mele has no younger sisters. | Aohe o Mele kaikaina. |

A: There are two possible English translations for the following Hawaiian sentence. What are they?

Aohe ou kaikuaana.

B: Translate the following sentence into English and indicate who is speaking, Mele or Keone:

Aohe ou kaikuahine.

C. The following English sentences would be difficult to translate directly into Hawaiian. Explain why this is true.

Keone has one brother.

Mele has one younger brother.

Hawaiian – KEY

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A: There are two possible English translations for the following Hawaiian sentence.

What are they?

Aohe ou kaikuaana. **I have no elder brothers (Keone/male speaking) 2) I have no elder sisters (Mele/female speaking)**

B: Translate the following sentence into English and indicate who is speaking, Mele or Keone:

Aohe ou kaikuahine. **'I have no sisters' (Keone speaking)**

C. The following English sentences would be difficult to translate directly into Hawaiian. Explain why this is true.

Keone has one brother.

Because in Hawaiian, the word for the brother of a boy and a sister of a girl are the same, and they are always distinguished according to age – younger or older. Thus there is no way to say "Keone" has one brother in Hawaiian without saying whether the brother is younger or older.

Mele has one younger brother.

The words for brother of a girl and sister of a boy are not distinguished by age. So you could easily say 'Mele has one brother,' but not 'Mele has one younger brother' given the words available in this problem.