Question 1: As easy as 2-3-5
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Study the following expressions in Japanese, then complete the translation of the phrases below. The \( \eta \) symbol represents a velar nasal, like the ‘ng’ in ‘sing’.

<table>
<thead>
<tr>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ashi gohon</td>
<td>five legs</td>
</tr>
<tr>
<td>banana sambon</td>
<td>three bananas</td>
</tr>
<tr>
<td>bōru niko</td>
<td>two balls</td>
</tr>
<tr>
<td>empitsu nihon</td>
<td>two pencils</td>
</tr>
<tr>
<td>kami nimai</td>
<td>two sheets of paper</td>
</tr>
<tr>
<td>ishi san'ko</td>
<td>three stones</td>
</tr>
<tr>
<td>neko gohiki</td>
<td>five cats</td>
</tr>
<tr>
<td>risu nihiki</td>
<td>two squirrels</td>
</tr>
<tr>
<td>sara gomai</td>
<td>five plates</td>
</tr>
<tr>
<td>uma nitō</td>
<td>two horses</td>
</tr>
<tr>
<td>ushi santō</td>
<td>three cows</td>
</tr>
</tbody>
</table>

(a) disuku .......... three disks
(b) endomame .......... five peas
(c) haŋkachi .......... two handkerchiefs
(d) kaba .............. five rhinos
(e) kyũri .............. three cucumbers
(f) morumotto ........... two guinea pigs
(g) nezumi ............ three mice
(h) rin'go ............ five apples
(i) tsuna .............. two ropes
(j) zō ................. three elephants
Solution to Question 1: As easy as 2-3-5

(a) disuku sammai three disks
(b) endomame goko five peas
(c) haŋkachi nimai two handkerchiefs
(d) kaba gotō five rhinos
(e) kyūri sambon three cucumbers
(f) morumotto nihiki two guinea pigs
(g) nezumi sambiki three mice
(h) riŋgo goko five apples
(i) tsuna nihon two ropes
(j) zō santō three elephants

Comments

The counting word came after rather than before the noun, and that it consisted of the words ni (2), sam/san/saŋ (3) and go (5). What of the other part of the word? If you rearrange the list so words with the same second part are together, a pattern should emerge:

- hon/bon: legs, bananas, pencils
- ko: balls, stones
- mai: sheets of paper, plates
- hiki: cats, squirrels
- tō: horses, cows

The second part of the counter word depends on the type of object being counted: long thin things, round things, flat things, small animals, big animals.

There are two other little tricky things going on: the variation in the word for 3 is because the ‘n’ of san matches (‘is assimilated’) to the following consonant: n+m/b becomes ‘m’, n+k/g becomes ‘ŋ’. And with the word for ‘long thin things’ hon, ‘h’ becomes ‘b’ with san (sam), so that explains why san+hiki becomes sambiki.

The basic principle of semantic grouping for the counter words should have been rather easy: it is typical of many East Asian languages, where these words are called ‘classifiers’.

Actually, English also has classifiers, though not as systematically used as in Japanese: we say three slices of bread, rather than three breads, 200 head of cattle, etc. (And by the way, the counter tō for big animals also means ‘head’, so Japanese is just like English!). The extra difficulty with the assimilation of the letters made the problem a little bit harder, or should we say, interesting.
Pali is a dead language, like Latin. It was a literary language related to Sanskrit, the ancestor of modern languages spoken in Northern India, such as Hindi; it is also distantly related to English. Pali was first written down around 100 BCE in Sri Lanka by Buddhist monks to preserve the teachings of the Buddha, and is usually written in a special script (which we replace here by our familiar Roman letters, using ā and ī for long vowels and without capital letters or punctuation).

Here are some sentences or phrases in Pali with their English translations:

<table>
<thead>
<tr>
<th>Pali</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>mahāmatto nisidati</td>
<td>The minister sits down.</td>
</tr>
<tr>
<td>mahāmattam upasamkamanti</td>
<td>They visit the minister.</td>
</tr>
<tr>
<td>samano tathāgato hoti</td>
<td>The philosopher is enlightened.</td>
</tr>
<tr>
<td>samane attham pucchanti</td>
<td>They ask the philosophers the meaning.</td>
</tr>
<tr>
<td>upāsako pucchati</td>
<td>The disciple asks.</td>
</tr>
<tr>
<td>loko mahāmattassa</td>
<td>the minister's world</td>
</tr>
</tbody>
</table>

Here are a few more items of vocabulary:

rājo 'king', devo 'god', gāmo 'village'

Translate the following into English: (4 marks)

a. rājo nisidati ___________________________

Translate the following into Pali: (11 marks)

a. The minister asks the philosophers. _______________________________________

b. The philosopher sits down. _____________________________________________

c. They sit down. _______________________________________________________

d. The minister asks the kings. ___________________________________________

e. the disciple’s village _________________________________________________

f. The meaning of the world is god. ______________________________________
Q29. A case of Pali Solution

• Structure of problem:
  – 6 sentences in Pali with their translations
  – Notice that some repeated words have different endings

• Challenge:
  – Work out which words correspond
  – and why the endings differ

Sets of similar words e.g. mahāmatto, mahāmattam, mahāmattassa all mean ‘minister’ but in different roles. Case endings and verbal agreement.

a. rājo nisidati The king sits down
b. rājo gāmassa devo hoti The {village’s king | king of the village} is (a) god

c. The minister asks the philosophers. mahāmatto samane pucchati
d. The philosopher sits down. samano nisidati
e. They sit down. nisidanti
f. The minister asks the kings. mahāmatto rāje pucchati
g. The disciple’s village. gāmo upāsakassa
h. The meaning of the world is god. attho lokassa devo hoti

This question is about case endings, typical of Indo-European languages. The nominative or subject case marker is -o, the accusative or object marker is -am, the dative or indirect object plural -e, and the genitive or possessive -asa. In addition, the verb agrees in number with the subject: -ti for singular, -nti for plural. Note also the word order: the verb comes at the end of the sentence, and the genitive follows the noun it applies to. So rājo gāmasa is ‘king of the village’, not ‘village of the king’.
A Telling the time in Tallinn

Tallinn is the capital of Estonia, where about 1 million people speak Estonian, a non-Indo-European language closely related to Finnish.

The following expressions show how to tell the time in Estonian:

Kell on üks
Kell on kaks
Veerand kaks
Pool neli
Kolmveerand üksteist
Viis minutit üks läbi

Here are some more numbers in English and Estonian:
6 kuus 7 seitse 8 kaheksa 10 kümme

A1. Translate the following into English words
(a) Kakskümmend viis minutit üheksaläbi
(b) Veerand neli
(c) Pool kolm
(d) Kolmveerand kakteist
(e) Kolmkümmend viis minutit kuus läbi

A2. Translate the following times into Estonian:
(a) Quarter to nine
(b) Quarter past four
(c) Half past eleven
(d) Five past seven
(e) Half past twelve

SOLUTION
A1.
(a) Twenty-five past nine
(b) Quarter past three
(c) Half (past) two
(d) Quarter to twelve
(e) Twenty-five to seven

A2.
(a) Kolmveerand üheksa
(b) Veerand viis
(c) Pool kaksteist
(d) Viis minutit seitse läbi
(e) Pool üks

Explanation

“Quarter past” and “half past” are translated as “Quarter of” and “Half of”, pointing to the next hour. So nelī in the fourth example is 4, not 3, which could also be guessed by the fact that kolmveerand is “three quarters”.
9 in 2a is not given, though üheksa appears in 1a, and can be guessed by analogy with kaheksa (8) (note the pattern ü=1, ka=2, if -heksa means “from 10”).
Similarly, for 2c you need to figure out that 12 is kaksteist, which is given in 1d, on the basis that üksteist in the fifth example is 11.
The word for 5, needed for 2b, is shown in the sixth example.
Kakskümmend (20) and kolmkümmend (30) must be guessed based on the fact that kaks=2, kolm=3 and kümme=10.