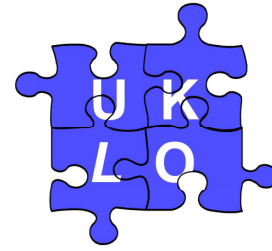


UKLO Round 2 March 2015

Malagasy Crossnumber



The main task is to solve a crossnumber puzzle in Malagasy, an Austronesian language and one of the official languages of Madagascar, but we must first explain what a crossnumber puzzle is, using an example from English. This type of puzzle is much like a crossword, except that each square in the grid is meant to hold a single digit rather than a single letter, and the clues are trivially easy provided you know the language. For example, if the clue for 'one across' is 'Seventy-four', you just write '7' in cell 1 and '4' in the next square to the right; and if 'one down' is 'seventy-three', you add '3' in the cell below.

But what if you don't know the language? Here is a crossnumber puzzle with the clues written in Malagasy. You need to know that:

- the clues are not given in the same order as the answers in the grid.
- no answer has zero as its first digit.

Clues: ACROSS

| ANSWER # | ANSWER |
|----------|--|
| Dimy | Efatra amby enimpolo sy telonjato sy sivy alina |
| Fito | Dimy ambin'ny folo sy roanjato sy arivo sy fito alina |
| Folo | Iraika amby fitopolo |
| Iray | Fito amby fitopolo |
| Sivy | Folo |
| Telo | Fito ambin'ny folo |
| Valo | Valo amby enimpolo sy sivinjato sy dimy arivo sy alina |

Clues: DOWN

| ANSWER # | ANSWER |
|----------|---|
| Efatra | Iraika amby valopolo sy dimanjato sy efatra arivo sy fito alina |
| Enina | Sivy amby roapolo sy telonjato |
| Iray | Iraika ambin'ny folo sy fitonjato sy sivy arivo sy fito alina |
| Roa | Dimampolo sy zato sy fito alina |
| Telo | Fito amby enimpolo sy zato sy enina arivo sy alina |

| | | | | |
|---|---|---|----|---|
| 1 | 2 | | 3 | 4 |
| 5 | | 6 | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | 10 | |

Q.2.1. Solve this crossnumber problem by filling all the cells.

Q.2.2: Write the following numbers in Malagasy.

| digits | Malagasy words |
|---------------|-----------------------|
| 7 | |
| 15,968 | |
| 99,573 | |
| 80,638 | |
| 817 | |

Malagasy Crossnumber

56 points, 10 marks

2.1: 23 points

2.2: 1 point per word (33 points)

Q.2.1.

| | | | | |
|--------|--------|--------|---------|--------|
| 1 7 | 2 7 | | 3 1 | 4 7 |
| 5 9 | 0 | 6 3 | 6 | 4 |
| 7 7 | 1 | 2 | 1 | 5 |
| 8 1 | 5 | 9 | 6 | 8 |
| 9 1 | 0 | | 10 7 | 1 |

Q.2.2:

| digits | Malagasy words |
|--------|---|
| 7 | fito |
| 15,968 | valo amby enimpolo sy sivinjato sy dimy arivo sy alina |
| 99,573 | telo amby fitopolo sy dimanjato sy sivy arivo sy sivy alina |
| 80,638 | valo amby telopolo sy eninjato sy valo alina |
| 817 | fito ambin'ny folo sy valonjato |

The NACLO site includes **an explanation for this problem at:**
<http://www.nacloweb.org/resources/problems/2015/N2015-LS.pdf>