

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>