


Algorithmics	Student information	Date	Number of session
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## Activity 1. The Numerical Square

**Table 1**

Test Case	Test for first Solution	Test for all the solutions	Number of solutions found
Test00	LoR	LoR	1
Test01	LoR	LoR	12
Test02	LoR	LoR	1
Test03	LoR (27 ms)	0,123 s	3
Test04	LoR(38 ms)	0,139 s	2
Test05	0,050 s	0,187 s	4
Test06	LoR (3ms)	0,052 s	16
Test07	5,547 s	Oot	19141

I think this problem could be solved using divide and conquer too but it is not going to be so efficient as using backtracking. Searching for all the solutions we could use brute force that is checking every time if the solution is correct and if not moving to the next position, instead of searching for a solution row by row and then checking all the columns. But this way would cost so much time so is not very efficient in practice.

To clarify how I have implemented the parser, it charges in a board all the numbers, including the solutions to each row and column, also it charges into a char array the operators used and I have another boolean bidimensional array for the numbers given. To check if the solution is valid there are two methods, one for the rows and another for the columns, that checks in a proper way if the given row or column is valid.