$5^{\text {th }}$ Junior Balkan Olympiad in Informatics
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Day 1

## Puzzle - solution

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For each piece of puzzle we generate the 8 possible forms of them, then we will try to assemble the 4 pieces with each of the 8 possibilities. When we found a solution we write it and we stop. The solution above has 100 points but it can be improved if:

- We notice that the first piece can be fixed and we search the solution operating only the other three pieces.
- Another improvement is to check the pieces in 3 different cases:


The other cases do not have to be checked because by rotating and/or mirroring them, we can obtain one of the 3 cases above.

- We also can improve the program storing only the 4 sides, without storing the whole square.
- The fastest solution would be to use a binary codification for each side and to operate on them as natural numbers.

