
Tutorial 6: Search and Parsing

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Exercise 7.1

Formalize this riddle in the form of a constraint network, with the constraints being reasonably small. (I.e. writing a single constraint is not a good solution!) In the following pattern each letter stands for a digit so that the resulting sum is correct.

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S E N D
M O R E
=====
M O N E Y
```

Manual constraint solving.

Crossword puzzles are often used in newspapers because they provide joy in solving semi-complex problems by combining logics and human experience. For the crossword above we want to find 6 words of length 3 that fit into the 3x3 table in a way that 3 words can be read horizontal from left to right and 3 words can be read vertically from top to bottom. Choose the words from the following list:

add, ado, age, ago, aid, ail, aim, air,
and, any, ape, apt, arc, are, ark, arm,
art, ash, ask, auk, awe, awl, aye, bad,
bag, ban, bat, bee, boa, ear, eel, eft,
far, fat, fit, lee, oaf, rat, tar, tie.

First, try to solve the problem without any formal methods or tools. How do you approach this problem as a human? (It is not necessary to give a full solution to the problem at this point, but you should report on the strategies you employ as a human and the problems you encounter.)