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Extra Credit PDD

Programming Design:

The overall design of this program is quite simple and straight forward. In order to do the assignment the following algorithm needs to be set in place, followed by several steps to complete the requirements:

1. Create a list that has 10 numbers total, for there are 10 unique letters (0-9).
2. Using the puzzle solve algorithm, implement it for an array list and loop through every single combination of numbers, with no duplicate/repeat.
3. Each time we have a new combination of numbers; do an algebraic summation of the numbers to see if it works. If so, print out the solution – there is only one.

Tradeoffs:

N/A – one way to do this using puzzle solve

Extensions

N/A

Test Cases:

The only test cases are what can be seen with the output, as you can tell from the output document, only one result yields the values that work, you can see that there are no repeated numbers, and thus the solution works. Doing the calculation out works as well.