Lab 01 - Numerical Problem Solving

Direction: Submit typed work in the Labs directory of your github repository and/or dropbox. Each part should be a separate .txt file. The files named should be `"lab1A.txt"` and `"lab1B.txt"` respectively.

Part A: In class

Your objective is to determine all possible solutions for the given arithmetic request by using only the digits 1 through 9. If there are no possible solutions, write no solution. For instance, if the request is `"Product of two numbers that equals 16"`, then the solutions would be $\{4, 4\}$ and $\{2, 8\}$.

- ☐ Sum of two distinct numbers that equals 10. {8,2} {6,4} {7,3} {9,1}
- ☐ Product of three distinct numbers that equals 30. {2,5,3}
- ☐ Sum of three numbers that equals 17 with at most one duplicate. {5,5,7} {6,6,5} {4,5,8} {3,6,8} {2,7,8} {1,9,7}
- ☐ Product of four numbers that equals 540 with at most one duplicate. {6,5,2,9}

Part B: Take home

Your objective is to write the solution to the 9×9 sudoku puzzle below. You must write in the digits 1 through 9 in each row such that no digit is repeated vertically, horizontally and in each box. In your solution, write each row on its own line; and for each row, write each digit enclosed in square braces. For instance, if the row is $(1, 2, 3, 4, 5, 6, 7, 8, 9)$, then you would type `[1] [2] [3] [4] [5] [6] [7] [8] [9]` for that row.