

Problem 1

This problem was asked by Yahoo.

Write a function that returns the bitwise AND of all integers between list M and list N (equal length), using recursion technique.

Sample input:

[2, 4, 1, 5, 1]

[3, 0, 2, 4, 1]

Sample output:

[2, 0, 0, 4, 1]

Problem 2

This problem was asked by Uber.

On Election Day, a voting machine writes data in the form (voter_id, candidate_id) to a text file. Write a program that reads this file as a stream and returns the top 3 candidates at any given time. If you find a voter voting more than once, report this as fraud.

Problem 3

This problem was asked by Apple.

A fixed point in an array is an element whose value is equal to its index. Given a sorted array of distinct elements, return a fixed point, if one exists. Otherwise, return False.

For example, given [-6, 0, 2, 40], you should return 2. Given [1, 5, 7, 8], you should return False