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**36th Annual High School Programming Contest**

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##### April 12, 2024

###### Green Problem #6: The Transfinder Problem

Background Information:

Picking up passengers at local bus stops is a critical task for all transportation service providers. In this problem, we have an East/West road with N stops, each stop having 0 or more people waiting to be picked up. The road has two ends, each end having an empty bus charged with picking up passengers. At Time 0, each bus starts moving towards the other, attempting to pick up passengers. (images: Flaticon.com)

     

In the example shown above, there are 4 stops, with 3, 3, 1 and 1 passenger respectively, looking from left to right. Each stop is numbered from left to right, starting at stop 1. In the case above, stops 1 and 2 have 3 passengers each, and stops 3 and 4 have 1 passenger each. Each bus requires one unit of time to move to the next stop. Once the bus arrives at a stop, the bus loads a single passenger using 1 time unit. Thus, to pick up 8 passengers in one stop requires 8 time units. Bus A moves right, starting with 0 passengers, while Bus B, moves left, starting with 0 passengers.

You must write a program to determine at which bus stop the buses meet, at what time they meet, and how many passengers are on each bus. If the buses cross paths during transitions between stops, the lower numbered stop is used as the location where the buses meet.

###### Programming Problem:

Input:  A positive integer N <= 100, followed by N non-negative integers. These represent the number of passengers waiting at stops 1 through N, respectively..

Output: Integer S, the bus stop where the buses meet, followed by the time T when they meet, followed by A and B, the number of passengers on bus A and bus B at time T. Each number is printed on the same line separated by 1 space.

###### Example 1: Input: 4

 3

 3

 1

 1

######  Output:  2 5 3 2