276 (museum) You are given natural n, rationals s and f (start and finish), and lists A, D: $[n*rat]$ (arrive and depart) such that

$$\forall i\cdot\ s \le A\ i \le D\ i \le f$$

They represent a museum that opens at time s, is visited by n people with person i arriving at time $A\ i$ and departing at time $D\ i$ and closes at time f. Write a program to find the total amount of time during which at least one person is inside the museum, and the average number of people in the museum during the time it is open, in time linear in n, if

(a) list A is sorted.

(b) list D is sorted.

no solution given