

in the first exercise we chose $\text{house_pos} = -2, -1, 2, 3, 4, 5, 6$ because since we start from 0, we will first go to -1 then -2 which make a higher waiting time for the houses than starting with 2

in this exercise, we chose to reduce as much as possible the distance traveled to reduce the waiting time, for that, at each loop, we try two loops followed by a greedy algorithm to check if in the end going left or right after many iteration is better

nested for loops are considered to be $O(n^k)$

in my solution that is not perfect, i first enter a first loop, then from that loop i enter two other loop that mean that i have a complexity of $n * 2n$

aside from that i only have basic calculation that are not taken into account for our question thus we can say with certainty that our big o is polynomial-time