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Problem 1

Points:

I did not work in a group.

"I did not consult anyone except my group members".

NO non-class material.

Problem 2 **Points:**

enemy drones

set list[0]=0;

in each list index, it is showing the maximized number of drones that can be destroyed on that index day. and we can get the number by find the maximum number of list[i]=Max(list[i-j]+min[f(j-i),xj]);

j is the minutes, so loop test for all possible minutes, so can find the maximum.

for(int i =1;i¡n,i++)[

int maxim=0;

for(int j =2;j¡=i,l++)[

maxim=Max(list[i-j]+min[f(j-i),xj]);]

list[i]=maxim;]

return list;

And then, we go through the whole list, from 1 to n, and write to list.

after the algorithm will have time complexity as $O(n^2)$

Problem 3 **Points:**

have an input a1, a2, ..., an and A $= \frac{1}{3}\sum_{i=1}^{n} a_i$

Make a Boolean matrix of (A + 1) × (A + 1) × (n + 1) called M, if two disjoint subset I, J 1,..., k that $\sum_{i\in I} a_i = x$ and $\sum_{j\in J} a_j = y$., mark correct.

the following step will not change the marked Boolean matrix so we will only need to mark once.

Take entry M[A, A, n] to get answer

algorithm will take $O(A^2 n)$ time.