ACM Summer Challenge 2020

Basic IO and Implementation

Editorial

Mike In Lockdown

Observe the question carefully.
For every i[th] day,
- If you already have enough time for studying and playing then you don't need extra time.
- If you don't have enough time then you need some extra time.

So you just need to calculate extra time required for each day and the sum of all such extra times is the answer.

Wait for It

As you can see you need to maximize the number of Legendary Integers formed. Then first lets form the the Integer '12' using 'A' number of 1 digits and 'B' number of 2 digits.
Hence, the maximum number of '12' formed will be **min(A,B)**.
Now we need to form Integer '234' using remaining B - min(A,B) number of '2' digits because **min(A,B)** number of '2' digits were used in forming Integer '12' and there are only **B - min(A,B)** number of '2' digits remaining, 'C' number of '3' digits and 'D' number of '4' digits.
So, the maximum number of '234' formed after forming Integer '12' will be **min(B - min(A,B) , C, D).**
Hence, the final answer will be **min(A,B) + min(B - min(A,B), C, D)**

Does it lie on Parabola?

The problem is a mathematical problem. Just check the equality condition as given in the question. But equality for Double Precision numbers is slightly complicated.

For equality of Double values, P and Q, you may use the following equation if you are facing any problem,
  abs(P-Q)<epsilon ;where epsilon can be any small number such as 10^{-6} or 10^{-9}.