Coding Questions:

1. In it's annual fest IIIT organized a treasure hunt. The final stage is to find a gem, hidden beneath rocks of varying weight.
   The gem is present below the rock which is the Xth heaviest out of all the rocks

   Help, your team win the game!

   First line: number of rocks
   Second line: weight of rocks
   third line: x

   Output: length of Xth biggest rock

   Expected timeComplexity: O(n)

   Input:
   9
   32 1 46 3 78 23 9 34 7
   4

   Output: 32

   Input:
   8
   34 25 46 346 4563 754 1 365
   2

   Output: 754

   Input:
   5
   1 3 45 2 55 8
   1

   Output: 55

   Input:
   9
   32 15 1 46 22 99 1999 32 3523
   9

Output: 1

2. The Sunshine Hotel outside NIT gate maintains a ledger of IIIT students who owes them money, with only debit and credit transactions being maintained on a daily basis (assume only one transaction per day)

   Now, the hotel manager wants to find out the money a student owes from ith day to jth day (Assume 0 based indexing)

   First line: number of transactions
   Second line: transactions
   Third line: i and j

   Output: total money from I to j (both inclusive)

   Input:
   5
   50 -100 -30 75 -200
   2 4

   Output:
   -155

   Input:
   6
   2 -9 23 81 -62 12
   0 3

   Output:
   16

   Input:
   4
   -19 -1 -44 -8
   1 1

   Output
   -1

   Input:
   5

-19 -1 -44 -8 10
0 4

Output:
-62

3. Assume IIITT campus to be a 2D graph, where buildings are present at different co-ordinate. Now, one day one curious first year student wants to find that out of all these buildings, what is the maximum number of buildings that lie in the same line.

   First Line: Number of buildings
   Next n lines contains the co-ordinate points

   Assume all points to be in first quadrant I.e positive

   Input:
   3
   1 1
   2 2
   3 3

   Output:
   3

   Input:
   4
   1 1
   3 2
   5 3
   4 1
   2 3
   1 4

   Output:
   4

   Input:
   4
   1 2
   0 0
   1 5
   2 7

1 6

Output
3

Input:
3
0 0
2 1
1 3

Output:
2

4. The office boy at IIITT is tasked on converting a document containing words separated by underscore “_” to camelCase.
   There are 100s of such documents, he knows that you being a coder can help him automate this process.

   First Line: original sentence, containing awesome_words (all lower case letters)
   Output: print awesomeWords

   Input:
   hello_world_I_am_great. the_weather_is_so_nice

   Output:
   helloWorldIAmGreat. theWeatherIsSoNice

   Input:
   this_is_so_cool. let_me_have_one

   Output
   thisIsSoCool. letMeHaveOne

   Input
   edge

   Output
   edge

   Input:
   edge. case

Output
edge. case

Input
i_am_the_way_i_am

Output
iAmTheWayIAm