**PROBLEMS**

1. **Area of DeLev**
2. **Greeks vs Romans.**
3. **Game time Duration**

**Area of DeLev:**

Sunny and Tarun are seeing the statue of unity (Sardar Vallabhbhai Patel), from opposite directions. They are mathematicians. A kid came there with her mother Raji who has worked as a mathematical professor in Oxford University. The kid is so smart that she pointed to tarun and sunny and the peak of statue and asked her mother to find the area of the triangle formed by the three points. As she has no clue of any measurements of statue or the angles, she started to feel uncomfortable. She went to sunny and tarun and explained the situation. She asked about every detail of the required measurements. But being so arrogant they want to test her mathematical skill. So, sunny told the angle of elevation and the distance between the peak and his point, and tarun told the angle of deviation of the peak and distance between the peak and his point.

But to their surprise Raji told the answer in 10 seconds. They wondered how she has managed to tell the answer in quick time.

Help them to find the route of doing so.

Their assumption is that if the persons are on opposite side of the statue, the sign of angles are different and vice versa. They had to find the max area formed by 3 points.

**Note:** Its good to refer 2B.

**Input Format:** Two lines each line containing distance(float) and the angles(in degrees)

**Output Format:** Area of the triangle formed rounded to the nearest integer.

**Sample Test Cases:**

**Input 1:**

5,37

5,-53

**Output:**

12

**Input 2:**

2,30

1.7320,54.7356

**Output:**

1

**Greeks vs Romans**

Before the Trojan war there were always fights between greeks and romans. There was one fight between them which was not mentioned in history. The fight existed for few hours as the puzzle posted by Greeks were solved by the romans.

**Puzzle:**

If 60 is encrypted as 1224, 501 as 49, 2001 as 13139 what is 567 encrypted to?

**Input format:**

Natural Number n.

**Output format:**

Natural Number.

**Sample Testcase:**

**Input 1:**

60

**Output:**

1224

**Input 2:**

501

**Output:**

49

**Game Time Duration**

The game PUBG has been the talk of the town from the day it has been released. But Indian government has started to observe the side effects of the game and hence started an investigation on this game. They have selected 29 players from each state and kept on observation. The first step is to know how much time duration of at least one player is playing the game. So, they have asked the help of the CODE3000 CEOs Tarun and Sunny to help them. The CEO’s being smart kept the same question as a challenge in one of their contests. Try and be the member of the ANTIPUBG team by being top in this challenge.

**Challenge:**

Number of players will be given, and the start and end time of the games played will be there in hour, minute and second format. Time duration at least one player being played should be obtained in the same format.

**Note**: All the game duration will be within one day i.e., 00:00:00 to 23:59:59.

**Input format:**

First line will be an integer n.

Next n lines will be time lapse in HH:MM:SS 24 hour format.

**Output format:**

Time Duration in HH:MM:SS 24 hour format

**Sample Testcase:**

**Input 1:**

4

00:10:30 01:10:30

01:00:00 04:10:30

03:30:00 04:10:30

04:00:00 06:00:00

**Output:**

05:49:30

**Input 2:**

3

10:00:00 23:00:00

01:00:00 22:00:00

23:00:00 23:45:00

**Output:** 22:45:00

Hello,

We welcome you to the event of the semester “CODE3000”. It is our **sixth** challenge in this contest. It is the coding event launched by Pragati to know the best of the best coders of pragati. It is a 4-hour challenge which will be held today(**i.e., 7th December 2020**) between 8 PM to 12 AM

It is best to login to the link below, 20 min before. Make sure you have active internet connection before starting the test.

The participation and submission are must and should as it will be an important phase for your future placement opportunities. So plzzz do attempt and submit the codes.

The hackerrank link is: [www.hackerrank.com/code3000](https://www.hackerrank.com/code3000)

Post this link in your class WhatsApp group if already posted neglect it.

Think Hard, Code Smart.

Thank You.