**Problem A: hemel18681 and His Exam**

**Discussion:**

In this problem it was mentioned that two number **X** and **Y** will be given and you have to find the difference between the **odd sum and even sum up to X and Y term**. Here it was said that hemel18681 forgot which term was for even and which term was for odd so he has to print the answer which is minimize in term of difference. You all know difference can’t be negative.

Like from the sample X=4 and Y=5,

If X is for odd and Y is for even, then odd sum is 1+3+5+7 = 16, even sum is 2+4+6+8+10 = 30.

So, the difference is 30 – 16 = 14.

But if we think X is for even and Y is for odd.

Then odd sum is 1+3+5+7+9 = 25 and even sum is 2+4+6+8 = 20.

So, the difference is 25 – 20 = 5.

As 5 is the minimum among the difference so, answer is 5.

And difference can’t be negative because difference means the distance from greater value to smaller value.

**Solution Approach:**

As the input can be very large **10^7** and there is also **10^6** test case, so using loop for finding out the sum can cause time limit. So, we have to use a mathematical way to solve the problem.

Also, if we use **int** in terms of sum then for large odd or even sum it will not be able to store the value of sum as the even sum for **100000th** term is **10000100000‬** and we know int can store the value up to **2\*10^9**. So, we need to use **long long** data type in terms of saving the sum.

The mathematical way to find the value of,

* **Xth**odd term is = **X\*X**.
* **Xth**even term is = **X\*X + X**.

Hope you will be able to understand this.

**Solution link for better understand:** [**https://drive.google.com/open?id=1Sh6LyIWIp7NEaLJ-IKcCUDUx5ImcYOi-**](https://drive.google.com/open?id=1Sh6LyIWIp7NEaLJ-IKcCUDUx5ImcYOi-)