

# Save the Scofield !!

Scofield is excellent at math tables, so T-BAG decided to make things a bit more interesting. He gives two numbers A and B and merges the tables of A and B in sorted order (ascending order), removing the duplicates and thus creates Saratable of A and B (sounds interesting) and asks Scofield the Nth number in the Saratable.

Given A, B and N, Help Scofield in finding the Nth number in the Saratable, else he will be put into Camp 22 (North Korea) by the security officer T-BAG .

## Input

First line contains number of test cases T. Each test case contains three integers A, B and N. **Output**

## Output

For each test case print the **N<sup>th</sup> number of the Saratable.**

### Constraints:

$1 \leq T \leq 300000$

$1 \leq A, B \leq 1000$

$1 \leq N \leq 1000000000$

### Input:

```
4
3 5 2
3 5 3
2 3 4
2 3 6
```

### Output:

```
5
6
6
9
```