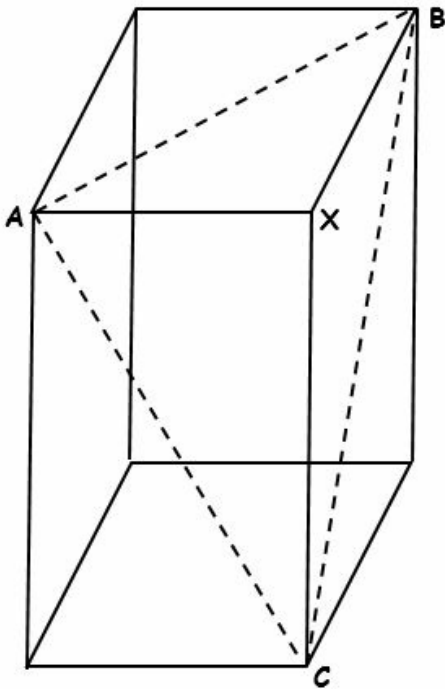


# Ichigo and Cubes

Ichigo is receiving special training from Kishuke Urahara to beat Aizen. This time, Kishuke took  $(P * Q * R)$  identical cubes and made them into a big box of dimensions  $P \times Q \times R$ . Moreover, it happened quite by chance that  $P, Q, R$  were all pairwise coprime, that is,  $\gcd(P, Q) = \gcd(Q, R) = \gcd(R, P) = 1$  where  $\gcd(X, Y)$  is the greatest integer dividing both  $X$  and  $Y$ . He then asked Ichigo to cut the box into two pieces with a single slice. Ichigo used a Getsuga Tenshou in his hollow form on the box and sliced it into two parts completely.

His slice was such that for a corner vertex  $X$  of the box, if  $A, B, C$  are the vertices of the box adjacent to  $X$ , then Ichigo's slice was a plane passing through  $A, B, C$  as given in the picture below. Now Kishuke is wondering what is the number of cubes that were cut into two parts. Since the answer can be huge, output it modulo  $(10^9 + 7)$ .



## Input Format:

Line 1: **T**  
T - Number of test cases.  
Lines 2 to T+1: **P Q R**  
P, Q, R - the dimensions of the box

## Output Format:

For each test case, print a single integer in a new line that is the number of cubes that were cut by Ichigo modulo  $(10^9 + 7)$ .

## Constraints:

$1 \leq T \leq 1000$   
 $1 \leq P, Q, R \leq 10^{12}$   
P, Q, R are pairwise coprime

## Sample Input:

```
3
1 1 1
2 1 3
5 3 2
```

### Sample Output:

```
1
5
15
```

### Explanation:

In the first test case, we have a single cube. And when Ichigo slices it, that single cube is sliced. So, the answer is 1.

In the second test case, we have a (2 x 1 x 3) cuboid. Then, when Ichigo takes an arbitrary vertex X and slice the cuboid as explained, then the cube which contains the vertex diagonally(body diagonal) opposite X in the cuboid is not cut, every other cube is cut. So, 5 cubes are cut.