Given an integer nn, Chiaki would like to find three positive integers xx, yy and zzsuch that: n=x+y+zn=x+y+z, x∣nx∣n, y∣ny∣n, z∣nz∣n and xyzxyz is maximum.

**Input**

There are multiple test cases. The first line of input contains an integer TT (1≤T≤1061≤T≤106), indicating the number of test cases. For each test case:   
The first line contains an integer nn (1≤n≤1061≤n≤106).

**Output**

For each test case, output an integer denoting the maximum xyzxyz. If there no such integers, output −1−1 instead.

**Sample Input**

3

1

2

3

**Sample Output**

-1

-1

1

找x,y,z，使得n=x+y+z且x|n,y|n,z|n且xyz最大

只有3的倍数和4的倍数能被三分（也可以打表看）

划分的时候，乘积约相近，乘积越大

所以

N是3的倍数的话，n/3 \*n/3\*n/3  
n是4的倍数的话 n/2\*n/2\*n/4

其他都是-1

注意一个地方，x是long long，给他赋值常数的时候，要转long long

X=-1LL

卡了好久！！！