

Problem F: Simply Loopy

Given an integer n , print what the following function (written in C++) will return :

```
long long unsigned lol(int n)
{
    long long unsigned ret = 0 , i , j , k , l , m , M = 7477777 ;

    for( i = 1 ; i ≤ n ; i++ )
        for( j = 1 ; j ≤ n ; j++ )
            for( k = 1 ; k ≤ n ; k++ )
                for( l = 1 ; l ≤ n ; l++ )
                    for( m=1 ; m ≤ n ; m++ )
                        if( i + j + k + l + m == n )
                            ret = (ret + i*i + j*j + k*k + l*l + m*m)%M ;

    return ret ;
}
```

Input

First line of input will contain the number of test cases, $T \leq 600$. Then there follows T lines, each containing an integer n ($1 \leq n \leq 10^5$).

Output

For each case, print the case number starting from **1** and the value returned by the function 'lol(n)' . See the sample output for exact formatting.

Sample Input	Output for Sample Input
3 5 6 7	Case 1: 5 Case 2: 40 Case 3: 175
<p>Note: A straight forward implementation of the given function may take millions of years, even for the fastest computers!</p>	
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<p>Alternate Solution: Muhammad Ridowan, Md. Shiplu Hawlader</p>	