2380 - BinaryCheckSum

Description

Binarychecksum is the counting of 1's in the binary representation of any decimal integer. For example, the binary representation of the number 4 is 100, and its Binarychecksum is 1. Your task is to calculate the sum of the Binarychecksum of each number, in a given list of integer numbers.

Input specification

The first line contain a single integer number **n (1 <= n <= 1000)**, and next **n** lines contains one integer number **k (0 <= k <= 10^9)**, representing the **i-th** number in the list.

Output specification

The first and only line of output must contain the requested sum.

Sample input

```
3
4
10
15
```

Sample output

```
7
```

Hint(s)

Source	José Miguel Argilagos Yis
Added by	**jmargilagos**
Addition date	2013-05-09
Time limit (ms)	30000
Test limit (ms)	3000
Memory limit (kb)	130000
Output limit (mb)	64