Project Euler #108: Diophantine reciprocals I

This problem is a programming version of Problem 108 from projecteuler.net

In the following equation $x, y, \text{and } n$ are positive integers.

$$\frac{1}{x} + \frac{1}{y} = \frac{1}{n}$$

For $n = 4$ there are exactly three distinct solutions: $$\frac{1}{5} + \frac{1}{20} = \frac{1}{4}\\ \frac{1}{6} + \frac{1}{12} = \frac{1}{4} \\ \frac{1}{8} + \frac{1}{8} = \frac{1}{4}$$

Find the number of distinct solutions for a given value of N

Input Format
First line containts T i.e. number of testcases, each of the T lines contains an integer N

Constraints
$1 \le T \le 100$
$2 \le N \le 10^{18}$

Output Format
Print the answer for each testcase on a new line.

Sample Input

```
3
4
7
9
```

Sample Output

```
3
2
3
```