

Problem A

Right-Coupled Numbers

Time limit: 1 second

Memory limit: 1024 megabytes

Problem Description

An integer x is said to be a right-coupled number, if you can find two integers, say $0 < a \leq b \leq x$ such that $a \times b = x$ and $a/b \geq 0.5$. In this problem, your task is to determine whether a given integer is a right-coupled number or not.

Input Format

The first line of the input is an integer N denoting the number of test cases. Each test case is in one line, which contains a single integer $0 < x < 2^{15}$.

Output Format

If the given integer x is a right-coupled number, output 1; otherwise, output 0. Each is in a single line.

Technical Specification

- $1 \leq N \leq 1000$
- $0 < x < 2^{15}$

Sample Input 1

```
4
66
55
105
150
```

Sample Output 1

```
1
0
0
1
```