## **Party**

n people came to a party. Then those, who had no friends among people at the party, left. Then those, who had exactly 1 friend among those who stayed, left as well. Then those, who had exactly 2, 3, ..., n - 1 friends among those who stayed by the moment of their leaving, did the same.

What is the maximum amount of people that could stay at the party in the end?

## Input

The first input line contains one number t— amount of tests ( $1 \le t \le 10^5$ ). Each of the following t lines contains one integer number n ( $1 \le n \le 10^5$ ).

## **Output**

For each test output in a separate line one number — the maximum amount of people that could stay in the end.

## **Example**

Input:

1

Output:

4