## 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 $2,3, \ldots, n-1$ 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 $\left(1 \leq t \leq 10^{5}\right)$. Each of the following $t$ lines contains one integer number $n\left(1 \leq n \leq 10^{5}\right)$.

## 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
3

## Output:

1

