

BUBT INTRA-UNIVERSITY PROGRAMMING CONTEST SPRING 2017(DIVISION 2)

Finished

THE CONTEST HAS ENDED.

## F. Bit Position Counting

Score: 1

CPU: 2s

Memory: 512MB

Little boy shawon and girl tisha are sibling. They are fond of arranging bit string (0 and 1) in different sequence. Shawon thought that he would start from even position and place consecutive 1 until next even position (as shown in bellow table as example). But tisha thought that she would start from odd position and place consecutive 1 until next odd position (as shown in bellow table as example). But they observed that some position have different bit each other.

**Bit position** 0 1 2 3 4 5 6 7 8**shawon** 1 1 1 0 1 1 1 0 1**Tisha** 0 1 1 1 0 1 1 1 0

(Consider 0 is the even position) Here bit position 0, 3, 4, 7, 8 contain different bit position.

### INPUT

First line of input contains an integer T ( $1 \leq T \leq 100$ ) that represent the test case and for each test case take an input N ( $3 < N < 10000$ ) that represent the total number of bits.

### OUTPUT

For each test case, your task is to print the total number of different bit position.

### HINTS

In the example id description for N=9, total different bit position is 5.

### Sample

Input	Output
4	7
13	25
50	1111
2221	1111
2223	

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