import java.lang.\*;

import java.util.\*;

import java.io.\*;

class Codevita1

{

public static int solve(int n)

{

int x=0;

while(Math.pow(2,x)<=n)

{

x++;

}

return x;

}

public static void main(String args[]) throws IOException

{

BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

BufferedWriter bw=new BufferedWriter(new OutputStreamWriter(System.out));

int t=Integer.parseInt(br.readLine());

while(t-->0)

{

int n=Integer.parseInt(br.readLine());

bw.write(solve(n)+"\n");

}

bw.flush();

}

}