import java.util.\*;

import java.lang.\*;

import java.io.\*;

class GFG {

public static void main (String[] args)

{ Scanner sc=new Scanner(System.in);

int t=sc.nextInt();

while(t-->0)

{ int i=0,count=0;

String Str=sc.next();

String st="gfg";

while(i!=Str.length()-st.length()+1 && Str.length()>=3)

{

if(st.compareTo(Str.substring(i,i+3))==0)

count++;

i++;

}

if(count!=0)

{

System.out.println(count);

}

else

{

System.out.println(-1);

}

}

}

}