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406410114    UVA10093 An Easy Problem!




//input 2<=N<=62
//output   int  ot such number is impossible!

#include <bits/stdc++.h>
using namespace std;


int main(){



        char digit_table[62] = { '0' };
        int i,j,k,t;
        char c;
        c = getchar();
        int sum = 0,max_bit= 0;
        while ( c != EOF  ){
                if ( c  >= '0' && c <= '9' ){
                        t = (c - '0');
                        sum+= t;
                        max_bit = max( t,max_bit );
                }//if
                else if ( c  >= 'A' && c <='Z' ){
                        t =(c - 'A')+10;
                        sum+= t;
                        max_bit=max(t,max_bit );
                }//else if
                else if ( c  >= 'a' && c <='z' ){
                        t = (c - 'a')+36;
                        sum+= t;
                        max_bit = max( t,max_bit );
                }//else if
                else if ( c == '\n' ){
                        //cout << "max_bit:" <<max_bit <<endl;
                        for ( i = max_bit ; i < 62 ;i++ ){
                                if ( sum == 0 ){
                                        cout << "2\n";
                                        break;
                                }//if

                                else if ( sum%i == 0 ){
                                        cout << i+1 <<endl;
                                        break;
                                }//else if
                        }//for

                        if ( i ==62 )
                                cout << "such number is impossible!" <<endl;
                        max_bit=0;
                        sum=0;
                }//else if

                c = getchar();

        }//while
        return 0;

}//main
```