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#include <iostream>
#include <cmath>
#include <algorithm>
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using namespace std;
long long k,a,b,c,x,r,n,m,p,e,o,ok,i,A,y,j,OK,sir[101];
int prim(long long n)
{
    if (n<2)
        return 0;
    for (long long i=2; i*i<=n; i++)
        if (n%i==0)
            return 0;
    return 1;
}
int pp(long long n)
{
    if (sqrt(n)==int(sqrt(n)))
        return 1;
    else
        return 0;
}
int main()
{
    for (k=1; k<=5; k++)
    {
        cin>>a>>b>>c>>x>>r;
        A=0;
        for (i=1;i<=r;i++)
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cin>>sir[i];
for (i=1; i<=r; i++)
{
y=x;
OK=1;
n=sir[i];
if (x+n<=52 and x+n!=a and x+n!=b and x+n!=c)
x+=n;
if (x==52)
{
A=-1;
break;
}
if ((y<7 and x>8) or (y<12 and x>13) or (y<17 and x>18) or (y>=22 and y<=26 and x>27) or
(y>=31 and y<=35 and x>36) or (y<=40 and x>41) or (y<=45 and x>=46))
{
while (x>y and x%n)
x--;
OK=0;
}
if ((x==a or x==b or x==c) and OK==0)
while ((x%n or (x==a or x==b or x==c)) and x>y)
x--;
if (prim(x) and OK)
for (o=1;o<=6;o++)
if (x+1!=a and x+1!=b and x+1!=c)
x++;
else
break;
}
}

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    if (x==52)
    {
        A=-1;
        break;
    }
    else
    if (x>52)
        x=y;
    if (pp(x) and x>4 and OK)
        for (o=1;o<=6;o++)
            if (x-1!=a and x-1!=b and x-1!=c)
                x--;
        else
            break;
}
if (A==1)
    cout<<"GAME OVER\n";
else
    cout<<x<<"\n";
}
}
```