```cpp
/*
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Division: Junior
Contest 4
*/
#include <bits/stdc++.h>

using namespace std;


bool sqr(int n)
{
    for(int i=3;i<=sqrt(n);i++)
    {
        if(n==i*i)
        {
            return true;
        }
    }
    return false;
}

bool pri(int n)
{
    for(int i=2;i<=sqrt(n);i++)
    {
        if(n%i==0)
        {
            return false;
        }
    }
    return true;
}
int main()
{
    int board[53]={0},p1,p2,p3,me,times,roll,rowa=0,rowb=0,cola=0,colb=0;
    int x[8][5]={{7,6,5,4,3}, {8,9,10,11,12}, {17,16,15,14,13}, {18,19,20,21,22},{50,49,48,47,46},
{41,42,43,44,45}, {40,39,38,37,36},{31,32,33,34,35}};

    cin>>p1>>p2>>p3>>me>>times;

    board[p1]=-1;
    board[p2]=-1;
    board[p3]=-1;
    for(int i=0;i<times;i++)
    {
        bool found=false;
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cin>>roll;
if(me+roll==52)
{
    cout<<"GAME OVER";
    break;
}
else if(me+roll<52 && board[me+roll]!=-1)
    me+=roll;

if(sqr(me))
{
    for(int j=1;j<=6;j++)
    {
    if(board[me-1]!=-1)
    {
     me=me-1;
    }
    }
}
else if(pri(me))
{
for(int j=1;j<=6;j++)
    {
    if(board[me+1]!=-1)
    {
     me=me+1;
    }
    }
}//checking horizontal and vertical move 3-49:
else if((me-roll<=26&&me>=28)||(me-roll>=3 &&me-roll<=21) || (me-roll>=31 && me-roll<50))
{

if(me-roll==2||me-roll==7 || me-roll==12|| me-roll==17|| me-roll==22|| me-roll==35|| me-
roll==40|| me-roll==45)
{
    if(roll==6)

    {
        for(int i=me-roll+1;i<=me;i++)
        {
           if(i%roll==0 && board[i]!=-1)
           {
              me=i;
              found=true;
              break;
           }
        }
     if(!found)
     me=me-roll;
```

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            }
        }
    else
        {
        for(int i=0;i<8;i++)
            {
            for(int j=0;j<5;j++)
                {
                if(me-roll==x[i][j])
                    {
                    rowb=i;
                    }

                if(me==x[i][j])
                    {
                    rowa=i;
                    }
                }
            }

        if((abs(rowa-rowb)>0)||(me-roll<=26&&me>=28))
            {
            for(int i=me-roll+1;i<=me;i++)
                {
                if(i%roll==0 && board[i]!=-1)
                    {
                    me=i;
                    found=true;
                    break;
                    }
                }
        if(!found)
            me=me-roll;
            }
        }
    }

    cout<<me<<endl;
    }

    return 0;
}
```