

Subiectul II

1. d)
2. c)
3.

0	1	0	0	1
0	0	0	0	1
0	1	0	0	0
1	0	0	0	0
1	1	0	1	0
4. (0, 5, 1, 1, 1, 1)
- 5.

```
#include <iostream>
#include <cstring>
using namespace std;
int n,x,p,i;
char s[101], s2[101];
int main() {
    cin.getline(s, 100);
    n=strlen(s);
    x=0;
    for (i=0;i<n;i++)
    {
        if (s[i] == ' ') {
            if (x>=3 && x%2!=0)
                s[i-x/2-1]='%';
            x=0;
        } else
            x++;
    }
    if (x>=3&& x%2!=0)
    {
        s[n-x/2-1]='%';
    }
    p=0;
    for (i=0;i<n;i++)
    {
        if (s[i]=='%') {
            p++;
        } else {
            s2[i-p]=s[i];
        }
    }
    s2[n-p]=0;
    cout << s2;
    return 0;
}
```

Subiectul III

1. a)
2. $f(5,5)=0$ și $f(10,21)=28$
- 3.

void perfect(int a, int b)

```
{
    int d,i,aux,s,k=0;
    for (i=b;i>=a;i--)
    {
        aux=i; s=0;
        for (d=1;d<aux;d++)
            if (aux%d==0) {s=s+d;k++;}
        if (s==aux) cout<<aux<<" ";
    }
    if (k==0) cout<<"nu exista";
}
```

- 4.

```
#include <iostream>
#include <fstream>
using namespace std;
ifstream f("bac.txt");
int lmax,amax,a,b,l;
int main ()
{
    l=1; f>>a;
    while (f>>b)
    {
        if (a==b)
        {
            l++;
        }
        else
        {
            if (l>=lmax)
            {
                lmax = l;
                amax = a;
            }
            l=1; a=b;
        }
    }
    if (l>=lmax)
    {
        lmax = l;
        amax = a;
    }
    cout<<lmax<<endl;
    for (int i=0;i<lmax;i++)
        cout<<amax<<" ";
    return 0;
}
```