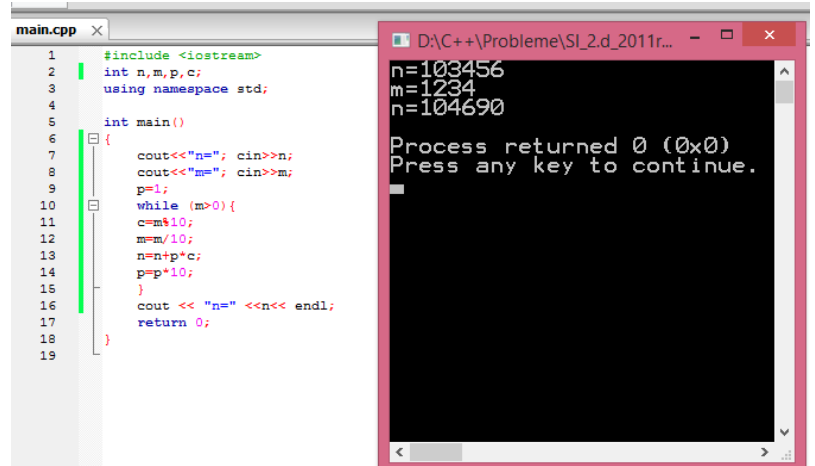


SUBIECTUL I

1. a
2. a. 104690
b. (0,10), (10,0), (1,9), (9,1), (2,8), (8,2), (3,7), (7,3), (4,6), (6,4)
c. citește n,m

n<-n+m
scrie n

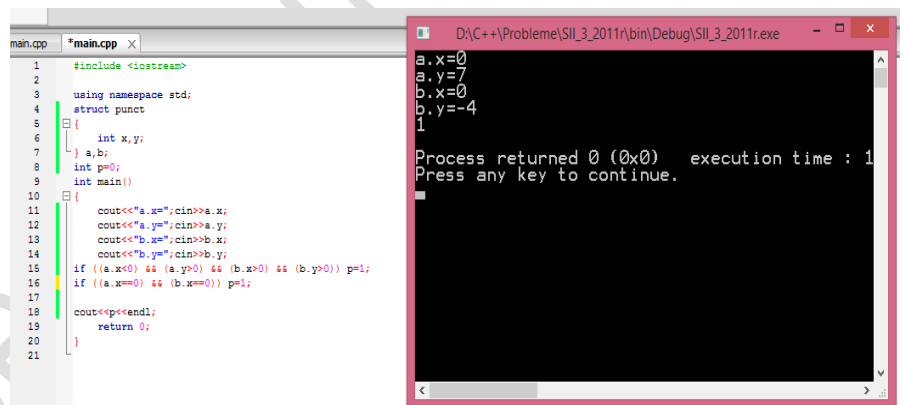
```
d. #include <iostream>
int n,m,p,c;
using namespace std;
int main()
{
    cout<<"n="; cin>>n;
    cout<<"m="; cin>>m;
    p=1;
    while (m>0){
        c=m%10;
        m=m/10;
        n=n+p*c;
        p=p*10; }
    cout << "n=" <<n<< endl;
    return 0;
}
```



SUBIECTUL al II-lea

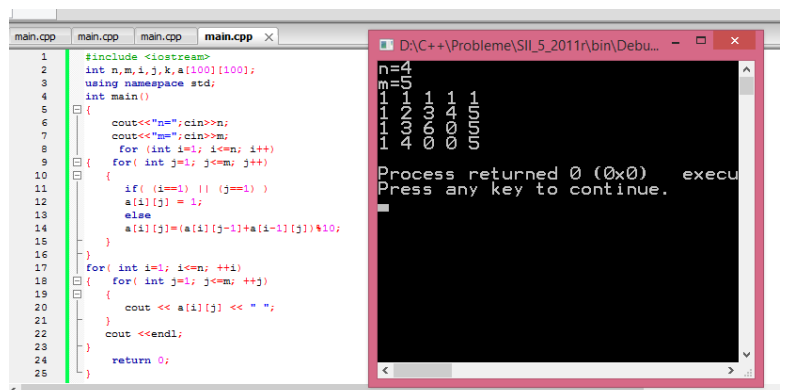
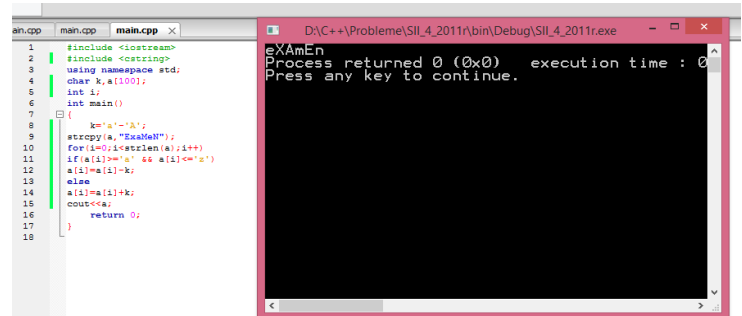
1. c
2. b
- 3.

```
#include <iostream>
using namespace std;
struct punct
{
    int x,y;
} a,b;
int p=0;
int main()
{
    cout<<"a.x=";cin>>a.x;
    cout<<"a.y=";cin>>a.y;
    cout<<"b.x=";cin>>b.x;
    cout<<"b.y=";cin>>b.y;
    if ((a.x<0) && (a.y>0) && (b.x>0) && (b.y>0)) p=1;
    if ((a.x==0) && (b.x==0)) p=1;
    cout<<p<<endl;
    return 0;
}
```



4. eXAmEn
- 5.

```
#include <iostream>
int n,m,i,j,a[100][100];
using namespace std;
int main()
{
    cout<<"n=";cin>>n;
    cout<<"m=";cin>>m;
    for (int i=1; i<=n; i++)
    { for (int j=1; j<=m; j++)
        { if( (i==1) || (j==1) )
            a[i][j] = 1;
        }
    }
}
```



```

else
    a[i][j]=(a[i][j-1]+a[i-1][j])%10;
}}
for (int i=1; i<=n; ++i)
{ for (int j=1; j<=m; ++j)
    { cout << a[i][j] << " ";
    }
    cout << endl;
} return 0; }

```

SUBIECTUL al III-lea

1. b
2. $f(0)=123$; $f(123456)=127$;
- 3.

```

#include<iostream>
using namespace std;
void ordonare(int a[], int j)
{int i,k,m;
for(i=0;i<j;i++){
    for(k=i+1;k<j;k++){
        if(a[i]<a[k]){
            m=a[i+1];
            a[i+1]=a[i];
            a[i]=m;
        }
    }
}
void sub(int n, int v[], int s)
{int a[100],i,j=0,m;
for(i=0;i<n;i++)
    if(v[i]%10+v[i]/10%10>s)
        {a[j]=v[i];j++;}
if(j==0)
    {cout<<"NU EXISTA";return;}
ordonare(a,j);
for(i=0;i<j;i++)
    cout<<a[i]<<" ";
}
int main()
{int n,v[100],s,i;
cout<<"n=";<<cin>>n;
cout<<"s=";<<cin>>s;
for(i=0;i<n;i++){
    cout<<"v["<<i<<"]=";<<cin>>v[i];}
sub(n,v,s);
}

```

- 4.

```

#include<iostream>
#include<cmath>
#include <fstream>
using namespace std;
int n,x,i,nr,ok=0,k=0,c1,c2;
ifstream fin("bac.txt");
int main()
{
while (fin>>x) {
++k;
if (ok==0){
if (sqrt(x)==(int)(sqrt(x))){
ok=1;c2=k;
}}
if (sqrt(x)==(int)(sqrt(x)))
{ c1=k;
}
}
nr=c1-c2+1;
cout<<"nr="<<nr<<endl;
return 0; }

```

```

main.cpp
1 #include<iostream>
2 using namespace std;
3 void ordonare(int a[], int j)
4 {int i,k,m;
5 for(i=0;i<j;i++){
6     for(k=i+1;k<j;k++){
7         if(a[i]<a[k]){
8             m=a[i+1];
9             a[i+1]=a[i];
10            a[i]=m;
11        }
12    }
13 }
14 void sub(int n, int v[], int s)
15 {int a[100],i,j=0,m;
16 for(i=0;i<n;i++)
17     if(v[i]%10+v[i]/10%10>s)
18         {a[j]=v[i];j++;}
19 if(j==0)
20     {cout<<"NU EXISTA";return;}
21 ordonare(a,j);
22 for(i=0;i<j;i++)
23     cout<<a[i]<<" ";
24 }
25 int main()
26 {int n,v[100],s,i;
27 cout<<"n=";<<cin>>n;
28 cout<<"s=";<<cin>>s;
29 for(i=0;i<n;i++){
30     cout<<"v["<<i<<"]=";<<cin>>v[i];}
31 sub(n,v,s);
32 }

```

```

D:\C++\Probleme\SIIL_3_2011\main.exe
n=6
s=12
v[0]=123
v[1]=878
v[2]=231
v[3]=189
v[4]=444
v[5]=789
878 789 189
Process returned 0 (0x0)  execution time : 2
Press any key to continue.

```

```

main.cpp
1 #include<iostream>
2 #include<cmath>
3 #include <fstream>
4 using namespace std;
5 int n,x,i,nr,ok=0,k=0,c1,c2;
6 ifstream fin("bac.txt");
7 int main()
8 {
9     while (fin>>x)
10     {
11         ++k;
12         if (ok==0){
13             if (sqrt(x)==(int)(sqrt(x))){
14                 ok=1;c2=k;
15             }
16             if (sqrt(x)==(int)(sqrt(x)))
17                 c1=k;
18         }
19     }
20     nr=c1-c2+1;
21     cout<<"nr="<<nr<<endl;
22     return 0;
23 }

```

```

D:\C++\Probleme\SIIL_4_2011\main.exe
nr=8
Process returned 0 (0x0)  execution time : 0
Press any key to continue.

```