Solution Of the HomeWork (If-else)

Exercice 2:

```
#include <iostream>
using namespace std;
main()
{
        int A,B,C;
        cout<<"enter A:";
        cin>>A;
        cout<<"enter B:";
        cin>>B;
        cout<<"enter C:";
        cin>>C;

        if(A>=B && A>=C)
        {
                cout<<A<<" is the greatest number";
        }
else    if(B>=A && B>=C)
        {
                cout<<B<<"is the greatest number";
        }
                else    if(C>=A && C>=B)
        {
                cout<<C<<"is the greatest number";
        }
}
```

Exercice 3:

```
#include<iostream>
#include<math.h>
using namespace std;
int main()
{
        int a,b,c,D;
        float x1,x2,x;

    cout<<"enter the value of a ";
    cin>>a;
     cout<<"enter the value of b ";
    cin>>b;
     cout<<"enter the value of c ";
    cin>>c;
    D=b*b-4*a*c;

   if(a==0&& b==0)
   cout<<"error";
```

```
   else
          if (a==0)
          {
          x=-c/b;
          cout<<"it's not a second degree equation";
          cout<<"x="<<x<<endl;
          }
   else  if (D==0)
    {
           x=-b/2*a;
          cout<<" this equation has one double root "<<endl;
    cout<<"x = "<<x<<endl;
          }
          else {
                    if (D>0)
                    {
                     x1=-b+sqrt(b*b-4*a*c)/2*a;
          x2=-b-sqrt(b*b-4*a*c)/2*a;
                     cout <<"this equation has 2 real roots "<<endl;
                    cout<<"x1 = "<<x1<<endl;
                    cout<<"x2 = "<<x2<<endl;
                     }
                     else {
                              if (D<0)
                              {cout<<"this equation has no real roots ";
                               }
                    }
          }

}
```

Exercice 4:

```
#include<iostream>
#include<math.h>
using namespace std;
int main()
{
          int a,b,c,t;

    cout<<"enter the value of a ";
    cin>>a;
     cout<<"enter the value of b ";
    cin>>b;
     cout<<"enter the value of c ";
    cin>>c;
   if (a>b)
   {
          t=a;
```

```
        a=b;
        b=t;
        }
        if (a>c)
        {
                t=a;
        a=c;
        c=t;
        }
        if (b>c)
        {
                t=b;
        b=c;
        c=t;
        }

        cout<< a<<"<"<<b<<"<"<<c;

}
```

Exercice 5:

```
using namespace std;

int main(){
        int A,B,C,D,n,l,z;

        cout<<"Enter a 4 digits number :";
        cin>>n;

        A = n/1000;
        B = n/100 - (A*10);
        C = n/10 - ((A*100)+(B*10));
        D = n - ((A*1000)+(B*100)+(C*10)); // D=n%10

        l = A+B;
        z = C+D;

        if (l==z){
                cout<<"WAW LUCKY NUMBER!!!"<<endl;
                cout<<n<<" is a lucky number since "<<A<<"+"<<B<<" = "<<C<<"+"<<D;
        }
        else{
                cout<<"UNLUCKY :c"<<endl;
                cout<<n<<" is not a lucky number since "<<A<<"+"<<B<<" != "<<C<<"+"<<D;
        }
        return 0;
}
```