//Nikhil 1133

//program name=maximum of three numbers

```cpp
#include <iostream>
using namespace std;
int main() {
    int a,b,c;
    cout<<"enter three numbers"<<endl;
    cin>>a>>b>>c;
    if(a>b&&a>c){
        cout<<"maximum of three numbers is "<<a;
    }
    else if(b>a&&b>c){
        cout<<"maximum of three numbers is "<<b;
    }
    else{
        cout<<"maximum of three number is "<<c;
    } return 0;}
```

Outputs:

```
enter three numbers
5
6
7
maximum of three number is 7

=== Code Execution Successful ===
```

```cpp
// Nikhil 1133

//program name= Roots of quadratic equation
# include <iostream>
#include <cmath>
using namespace std;
int main() {
    float a,b,c,D;
    cout<<"Enter a,b,c"<<endl;
    cin>>a>>b>>c;
    D=(b*b)-(4*a*c);
float r1,r2,c1;
    r1=(-b+pow(D,1/2))/(2*a);
    r2=(-b-pow(D,1/2))/(2*a);
    c1=-b/(2*a);
    if(D==0){
        cout<<"roots are real and equal"<<endl<<c1<<endl<<c1;
    }
    else if(D<0){
        cout<<"roots are imaginary"<<endl<<r1<<endl<<r2;
    }
    else{
        cout<<"roots are real"<<endl<<r1<<endl<<r2;
    }
    return 0;
```

```
Enter a,b,c
2
4
2
roots are real and equal
-1
-1

=== Code Execution Successful ===
```

```cpp
// Nikhil 1133

//program name=compound interest

#include <iostream>

#include<cmath>

using namespace std;

int main() {

    float A,P,r,n,t;

    cout<<"enter P,r,n,t"<<endl;

    cin>>P>>r>>n>>t;

    A=P*pow(1+(r/n),n*t);

    cout<<A;

    return 0;
```

```
enter P,r,n,t
3000
8
2
1
75000

=== Code Execution Successful ===
```
}

```cpp
// Nikhil 1133
//program name=Grade letter based on marks
#include <iostream>
using namespace std;
int main() {
    float x;
    cout<<"enter marks:";
    cin>>x;
    if(x>=90&&x<=100){
        cout<<"Grade A";
    }
    else if(x>=80&&x<90){
        cout<<"Grade B";
    }
    else if(x>=70&&x<80){
        cout<<"Grade C";
    }
    else if(x>=60&&x<70){
        cout<<"Grade D";
    }
    else{
        cout<<"Fail";
    }
    return 0;
}
```

```
enter marks:54
Fail

=== Code Execution Successful ===
```

```cpp
// Nikhil 1133
//program name=maximum and minimum of three numbers
#include <iostream>
using namespace std;
int main() {
    int a,b,c;
    cout<<"enter three numbers:"<<endl;
    cin>>a>>b>>c;
    if(a>b&&a>c){
        cout<<"maximun number is :"<<a;{
            if(c<b){
                cout<<"minimum number is:"<<c;
            }
            else{
                cout<<"minimum number is:"<<b;
            }
        }
    }
    else if(b>a&&b>c){
        cout<<"maximum number is:"<<b;{
            if(c<a){
                cout<<"mimimum number is:"<<c;
            }
            else{
                cout<<"minimum number is:"<<a;
            }
        }
    }
```

```cpp
    else{

        cout<<"maximum number is:"<<c;{

            if(a<b){

                cout<<"minimum number is:"<<a;

            }

            else {

                cout<<"minimum number is:"<<b;

            }

        }

    }

    return 0;

}
```

```
enter three numbers:
86
-90
87
maximum number is:87minimum number is:-90

=== Code Execution Successful ===
```

```cpp
// Nikhil 1133
//program name=maximum of two numbers
#include <iostream>
using namespace std;
int main() {
    int a,b;
    cout<<"enter two numbers"<<endl;
    cin>>a>>b;
    if(a>b){
        cout<<"maximum of three numbers is "<<a;
    }
    else {
        cout<<"maximum of three numbers is "<<b;
    }
    return 0;
}
```

Output

```
enter two numbers
78
90
maximum of three numbers is 90

=== Code Execution Successful ===
```

```cpp
// Nikhil 1133

//program name-Calculator

#include <iostream>

using namespace std;

int main(){

char op;

double a,b;

cout<<"Scientific Calculator Menu";

cout<<"Enter operator op:+,-,*,/";

cin>>op;

cout<<"Enter first number:";

cin>>a;

cout<<"Enter second number:";

cin>>b;

switch(op){

case '+' :

cout<<a+b;

break;

case '-' :

cout<<a-b;

break;

case '*' :

cout <<a*b;

break;

case '/' :

cout<<a/b;

break;

default:"User entered wrong operator";}
```
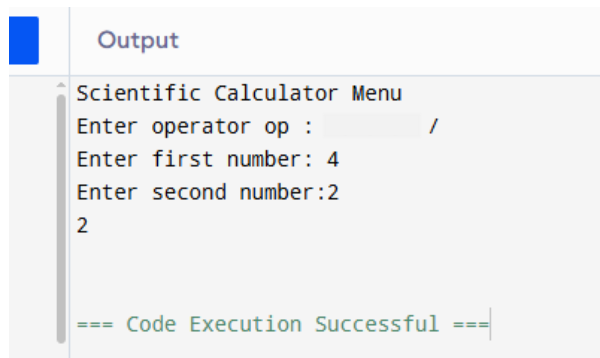
return 0;

}

```
Output

Scientific Calculator Menu
Enter operator op :              /
Enter first number: 4
Enter second number:2
2


=== Code Execution Successful ===
```