```cpp
// Day 8 coding Statement:  Write a program to find roots of a quadratic equation
// Description: Get the values of a, b and c (coefficients of quadratic equation)
as input from the user and calculate the roots and print as the output.
// Input
// Enter the value of a, b and c : 1 -6 9
// Output
// Roots are equal
// Root 1= root 2 = 3.00
/*  C++ Program to Find Roots of Quadratic Equation using if else  */

#include <iostream>
#include <cmath>
using namespace std;

int main()
{

    double a, b, c, root1, root2, determinant, realPart, imaginaryPart;
    cout << "Enter value a : ";
    cin >> a ;
    cout << "\nEnter value b : ";
    cin >> b ;
    cout << "\nEnter value c : ";
    cin >> c ;

    determinant = b*b - 4*a*c;

    if (determinant > 0)
    {
        root1 = (-b + sqrt(determinant)) / (2*a);
        root2 = (-b - sqrt(determinant)) / (2*a);
        cout << "\nRoots are real and different." << endl;
        cout << "\nroot1 = " << root1 << endl;
        cout << "\nroot2 = " << root2 << endl;
    }

    else if (determinant == 0)
    {
        cout << "\nRoots are equal" << endl;
        root1 = (-b + sqrt(determinant)) / (2*a);
        cout << "\nRoot1 = root2 = " << root1 << endl;
    }

    else
```

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    {
        realPart = -b/(2*a);
        imaginaryPart =sqrt(-determinant)/(2*a);
        cout << "\nRoots are different."  << endl;
        cout << "\nroot1 = " << realPart << "+" << imaginaryPart << "i" << endl;
        cout << "\nroot2 = " << realPart << "-" << imaginaryPart << "i" << endl;
    }

    return 0;
}
```