

Output

```
^ /tmp/4DjwhNy88y.o
This program solves quadratic equations of the form  $ax^2 + bx + c$ 
Enter coefficients a, b, and c: 1,0,0
Root1 = -0.000
Root2 = -0.000

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

Output

```
^ /tmp/He9nmPjYRq.o
This program solves quadratic equations of the form  $ax^2 + bx + c = 0$ .
Enter coefficients a, b, and c: 1,3,1
Root1 = -0.382
Root2 = -2.618














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

main.c






```

16 } else if (discriminant == 0) {
17     *root1 = *root2 = -b / (2 * a);
18 } else {
19     printf("Roots are imaginary.\n");
20 }
21 }
22
23 int main() {
24     double a, b, c, discriminant, root1, root2;
25
26     instruct();
27
28     printf("Enter coefficients a, b, and c: ");
29     scanf("%lf, %lf, %lf", &a, &b, &c);
30
31     discriminant = calculateDiscriminant(a, b, c);
32
33     calculateRoots(a, b, discriminant, &root1, &root2);
34
35 if (discriminant >= 0) {
36     printf("Root1 = %6.3lf\n", root1);
37     printf("Root2 = %6.3lf\n", root2);
38 }
39
40 return 0;
41 }
    
```



main.c

 Share

Run

```
1  #include <stdio.h>
2  #include <math.h>
3
4  void instruct() {
5      printf("This program solves quadratic equations of the form ax^2 + bx + c =
        0.\n");
6  }
7
8  double calculateDiscriminant(double a, double b, double c) {
9      return b * b - 4 * a * c;
10 }
11
12 void calculateRoots(double a, double b, double discriminant, double *root1,
    double *root2) {
13     if (discriminant > 0) {
14         *root1 = (-b + sqrt(discriminant)) / (2 * a);
15         *root2 = (-b - sqrt(discriminant)) / (2 * a);
16     } else if (discriminant == 0) {
17         *root1 = *root2 = -b / (2 * a);
18     } else {
19         printf("Roots are imaginary.\n");
20     }
21 }
22
23 int main() {
24     double a, b, c, discriminant, root1, root2;
```