



```
#include <stdio.h>
#include <conio.h>
#include <math.h>

void main() {
    int a, b, c;
    float D, r1, r2, real, img;
    clrscr();
    printf("Enter the coefficient of the quadratic equation: ");
    scanf("%d %d %d", &a, &b, &c);
    D = (b*b) - (4*a*c);
    if (D > 0) {
        r1 = (-b + sqrt(D)) / (2*a);
        r2 = (-b - sqrt(D)) / (2*a);
        printf("The roots are real and distinct\n%.2f and %.2f", r1, r2);
    }
    else if (D == 0) {
        r1 = -b / (2*a);
        r2 = r1;
        printf("The roots are real and equal %.2f and\n%.2f", r1, r2);
    }
    else {
        real = -b / (2*a);
        img = sqrt(-D) / (2*a);
        printf("The roots are imaginary");
        printf(" %.2f + %.2fi and %.2f - %.2fi",
            real, img, real, img);
    }
    getch();
}
```




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Output

Enter the coefficient of the quadratic equation:

1 +2 1

The roots are real and equal -1.00 and -1.00

Enter the coefficient of the quadratic equation:

1 -5 6

The roots are real and distinct 3.00 and 2.00

Enter the coefficient of the quadratic equation:

1 4 5

The roots are imaginary $-2.00 + 1.00i$ and $-2.00 - 1.00i$