import java.util.\*;

class Quadratic {

int a, b, c;

double r1, r2, d;

void getd(Scanner in) {

System.out.println("Enter the coefficients of a, b, c");

a = in.nextInt();

b = in.nextInt();

c = in.nextInt();

}

void compute() {

while (a == 0) {

System.out.println("Not a quadratic equation");

System.out.println("Enter a non-zero value for a:");

Scanner in = new Scanner(System.in);

a = in.nextInt();

}

d = b \* b - 4 \* a \* c;

if (d == 0) {

r1 = (-b) / (2.0 \* a);

System.out.println("Roots are real and equal");

System.out.println("Root1 = Root2 = " + r1);

} else if (d > 0) {

r1 = (-b + Math.sqrt(d)) / (2.0 \* a);

r2 = (-b - Math.sqrt(d)) / (2.0 \* a);

System.out.println("Roots are real and distinct");

System.out.println("Root1 = " + r1 + ", Root2 = " + r2);

} else {

System.out.println("Roots are imaginary");

r1 = (-b) / (2.0 \* a);

r2 = Math.sqrt(-d) / (2.0 \* a);

System.out.println("Root1 = " + r1 + " + i" + r2);

System.out.println("Root2 = " + r1 + " - i" + r2);

}

}

}

class QuadraticMain {

public static void main(String args[]) {

Scanner in = new Scanner(System.in);

Quadratic q = new Quadratic();

q.getd(in);

q.compute();

in.close();

System.out.println("1BM23EE044");

System.out.println("Ruqaiyya Mahreen");

}

}

