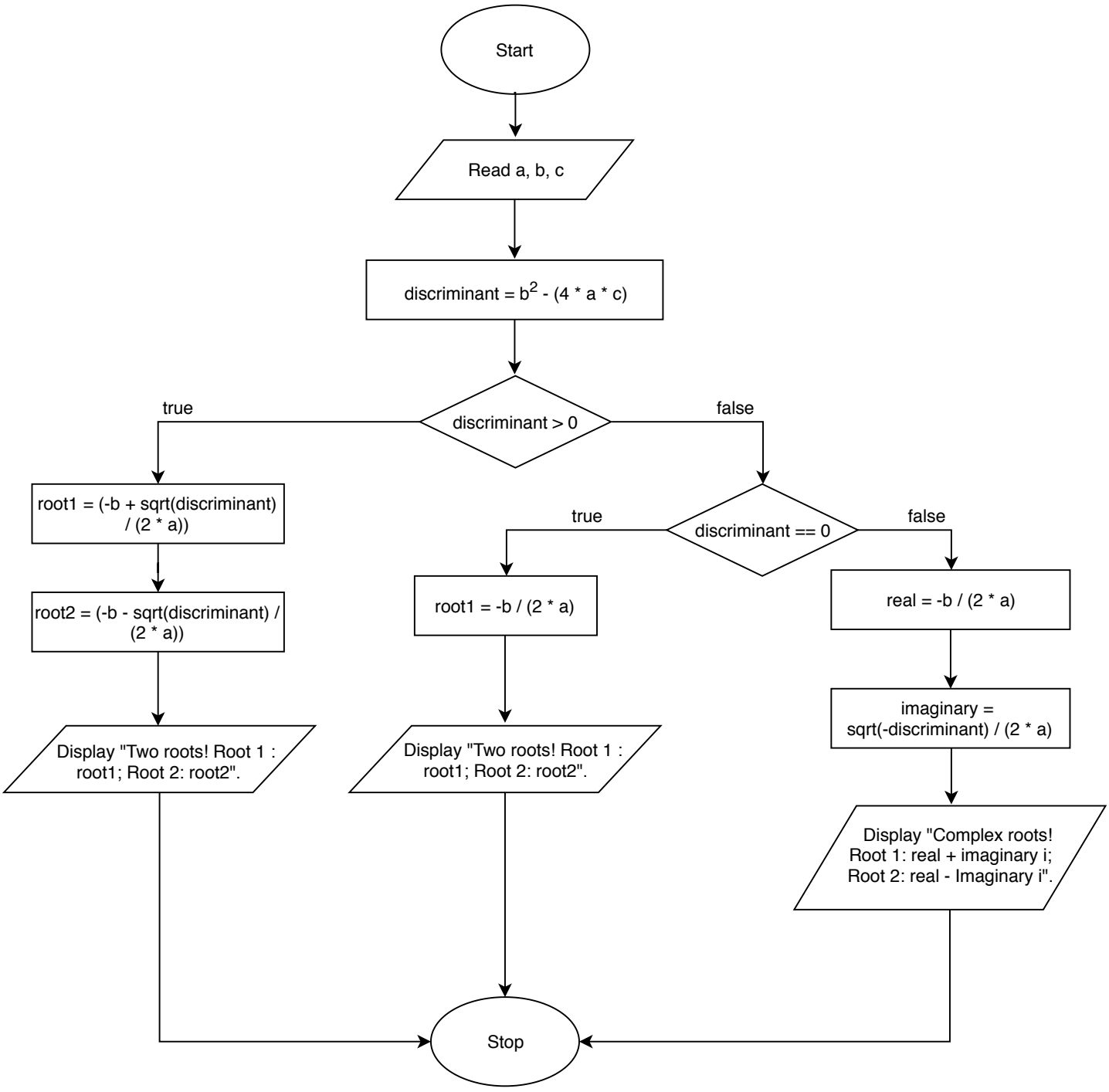
Algorithm

1. Start
2. Read Quadratic Equation value a, b, c, store in a, b, c.
3. Compute Discriminant of Quadratic Equation (= b^2 - 4 * a * c), store in discriminant.
4. if discriminant is more than 0, go to step 5. Otherwise, go to step 9.
5. Compute first root (= (-b + sqrt(discriminant) / (2 * a)), store in root1.
6. Compute second root (= (-b - sqrt(discriminant) / (2 * a)), store in root2.
7. Display "Two roots! Root 1 : root1; Root 2: root2".
8. Go to step 18.
9. If discriminant is equal to 0, go to step 10. Otherwise, go to step 13.
10. Compute root1 (= -b / (2 * a)), store in root1.
11. Display "Equal roots! Root: root1".
12. Go to step 18.
13. If discriminant is less than 0, go to step 14.
14. Compute real part (= -b / (2 * a)), store in real.
15. Compute imaginary part (= sqrt(-discriminant) / (2 * a)), store in imaginary.
16. Display "Complex roots! Root 1: real + imaginary i; Root 2: real - Imaginary i".
17. Go to step 18.
18. Stop.

Flowchart


Start
Read a, b, c
discriminant = b2 - (4 * a * c)
discriminant > 0
true
false
root1 = (-b + sqrt(discriminant) / (2 * a))
root2 = (-b - sqrt(discriminant) / (2 * a))
Display "Two roots! Root 1 : root1; Root 2: root2".
discriminant == 0
true
false
root1 = -b / (2 * a)
Display "Two roots! Root 1 : root1; Root 2: root2".
real = -b / (2 * a)
imaginary = sqrt(-discriminant) / (2 * a)
Display "Complex roots! Root 1: real + imaginary i; Root 2: real - Imaginary i".
Stop