

1. START.
2. INPUT THE VALUES OF A, B, and C in the quadratic equation  $a(x^2) + b * x + c = 0$
3. COMPUTE THE DISCRIMINANT(D) :  $D = b^2 - (4 * a * c)$
4. IF  $D > 0$ , THE EQUATION HAS TWO REAL ROOTS
  - Calculate roots:  $x = (-b + \text{sqrt}(D)) / (2 * a)$
  - Calculate roots:  $x = (-b - \text{sqrt}(D)) / (2 * a)$
- IF  $D = 0$ , THE EQUATION HAS ONE REAL ROOT( A REPEATED ROOT)
  - Calculate root:  $x = -b / (2 * a)$
- IF  $D < 0$ , THE EQUATION HAS COMPLEX ROOTS
  - Calculate root:  $x = (-b + \text{sqrt}(D)) / (2 * a)$
  - Calculate root:  $x = (-b - \text{sqrt}(D)) / (2 * a)$
5. END