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ALGO EXERCISE # 4.2

PSEUDOCODE

1. **LE4.12** Quadratic Equation

START

1. ASSIGN int variable: a, b, c
 2. ASSIGN float variable: oneroot, discriminate, firstroot, secondroot
 3. PROMPT and GET the value of a, b, and c
 4. COMPUTE and STORE discriminate value using the formula $(b^2)-(4*a*c)$
 5. COMPUTE and STORE firstroot value using the plus formula of the quadratic equation
 6. COMPUTE and STORE secondroot value using the minus formula of the quadratic equation
 7. IF both a and b is equal to zero
 8. DISPLAY there is no solution
 9. ELSE IF only a is equal to zero
 10. COMPUTE and STORE oneroot value using the formula $-c/b$ (this operation is put here to avoid floating point exception)
 11. DISPLAY there is only one root and the one root value
 12. ELSE IF the calculated discriminate is less than zero (negative)
 13. DISPLAY there are no real roots and the discriminate value
 14. ELSE
 15. DISPLAY there are two roots and the first and second root value
- END



FLOWCHART

