



NAME: Lauron, John Enrico D.

DATE: 10/02/2023

ALGORITHM EXERCISE # 4.1

LE 4.11: Vowel and Consonant (Pseudocode)

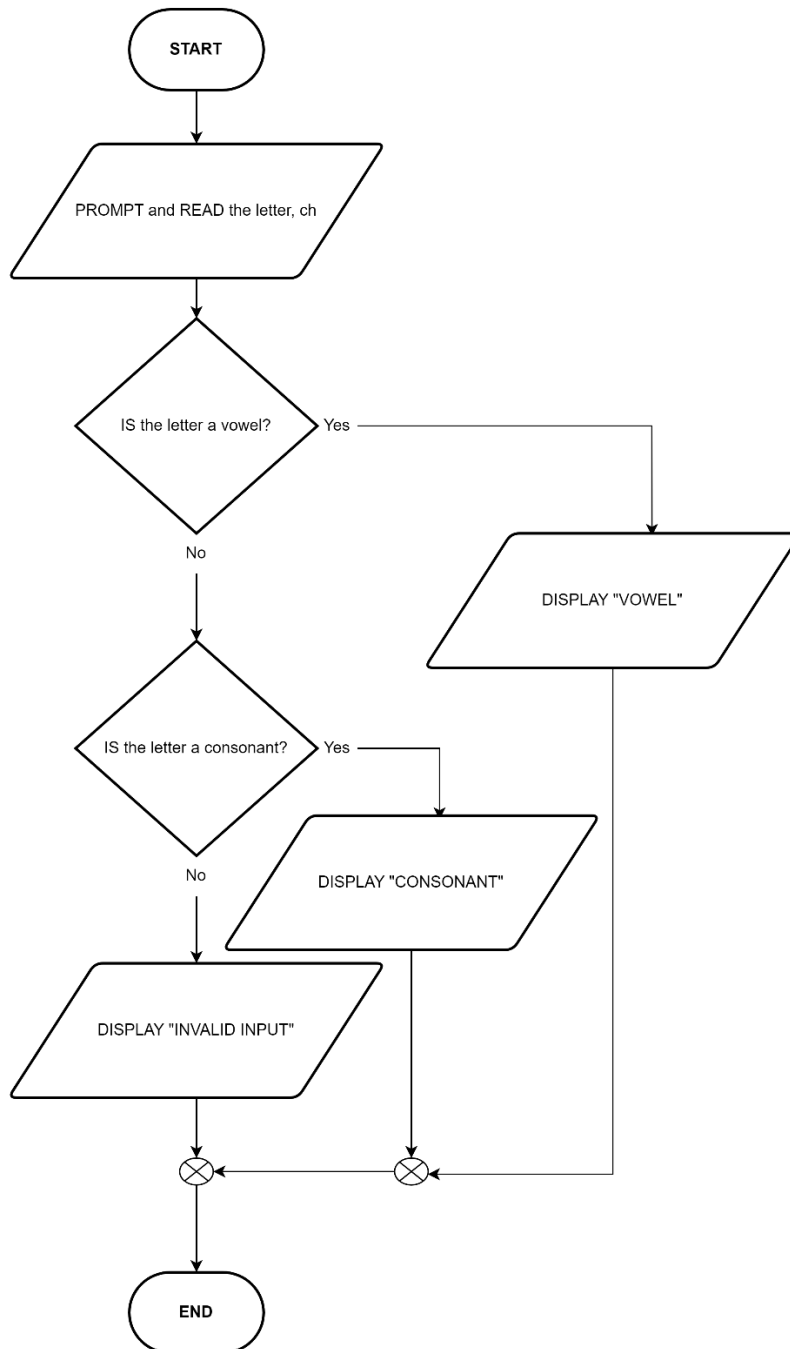
START

1. PROMPT and READ the letter, ch
2. CHECK value of the letter
3. IF (ch == 'A', 'a', 'E', 'e', 'I', 'i', 'O', 'o', 'U', 'u') THEN
 - a. DISPLAYS ch is a vowel
4. ELSE IF the letter is consonant THEN
 - a. DISPLAYS ch is a consonant
5. ELSE
 - a. DISPLAYS Invalid Input
6. ENDIF

END



LE 4.11: Vowel and Consonant (Flowchart)





LE 4.12: Quadratic Equation (Pseudocode)

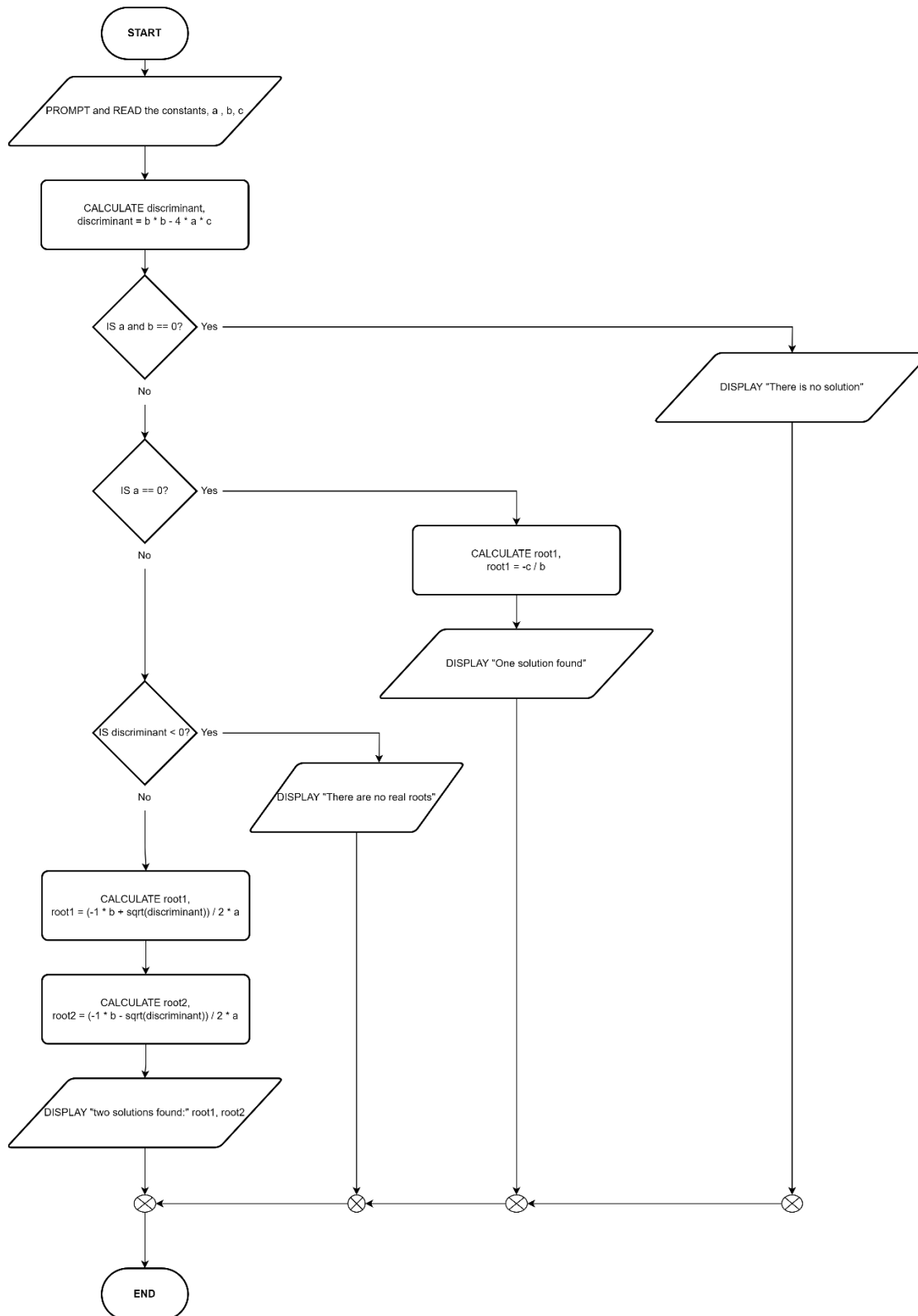
START

1. PROMPT and READ the constants, a, b, c
2. CALCULATE discriminant, $\text{discriminant} = b * b - 4 * a * c$
3. SOLVE for the quadratic equation
4. IF a and b is equal to 0 THEN
 - a. DISPLAYS there is no solution
5. ELSE IF a only is equal to 0 THEN
 - a. DISPLAYS there is only one root
6. ELSE IF discriminant is less than 0 THEN
 - a. DISPLAYS there are no real roots
7. ELSE
 - a. CALCULATE root1, $\text{root1} = (-1 * b + \text{sqrt}(\text{discriminant})) / 2 * a$
 - b. CALCULATE root2, $\text{root 2} = (-1 * b - \text{sqrt}(\text{discriminant})) / 2 * a$
 - c. DISPLAYS two solutions found, root1, root2
8. ENDIF

END



LE 4.12: Quadratic Equation (Flowchart)





LE 4.13: Student's Final Grade (Pseudocode)

START

1. PROMPT and READ the four marks, firstMark, secondMark, thirdMark, fourthMark
2. CALCULATE the final grade, $\text{finalGrade} = (\text{firstMark} + \text{secondMark} + \text{thirdMark} + \text{fourthMark}) / 4$
3. IF final grade is less than 50 THEN
 - a. DISPLAY failed
4. ELSE IF final grade is greater than or equal to 50 and less than or equal to 100 THEN
 - a. DISPLAY passed
5. ELSE
 - a. DISPLAYS invalid input
6. ENDIF

END



LE 4.13: Student's Final Grade (Flowchart)

