

LAB 01: C Programming Language and Problem Solving

1. Scope of Knowledge:

- Basic knowledge of C programming language
- Setup C programming environment and run the first program
- Keywords in the C programming language
- Understand the steps to solving the problem
- Use flowchart to describe the algorithm

2. Marterials/Softwares/Tools:

- Visual Studio Code
- Draw IO (online) or Microsoft Word

3. Coding Convention:

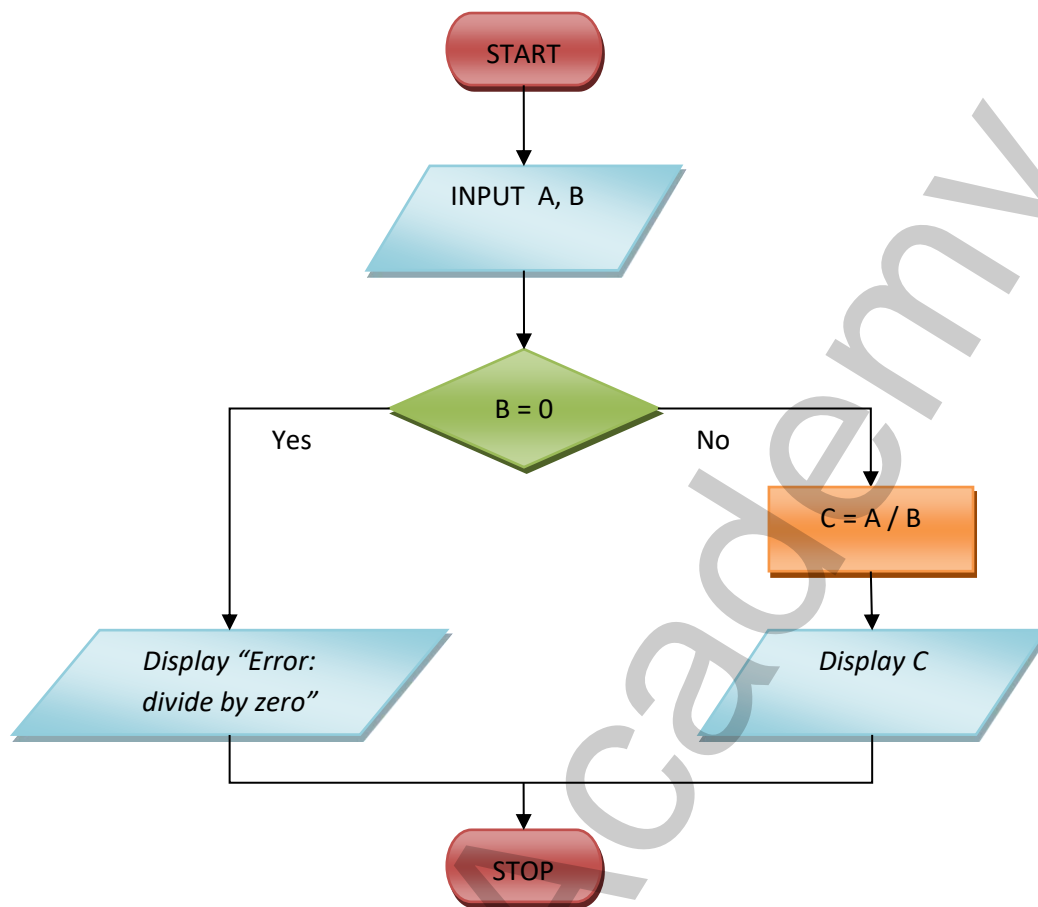
- All identifiers must be in English and lower case
- Follow the valid identifers naming rules in C
- Tab is 4 characters
- Curly braces must be aligned
- Statements in curly brackets must be indented by 1 tab

4. Exercise:

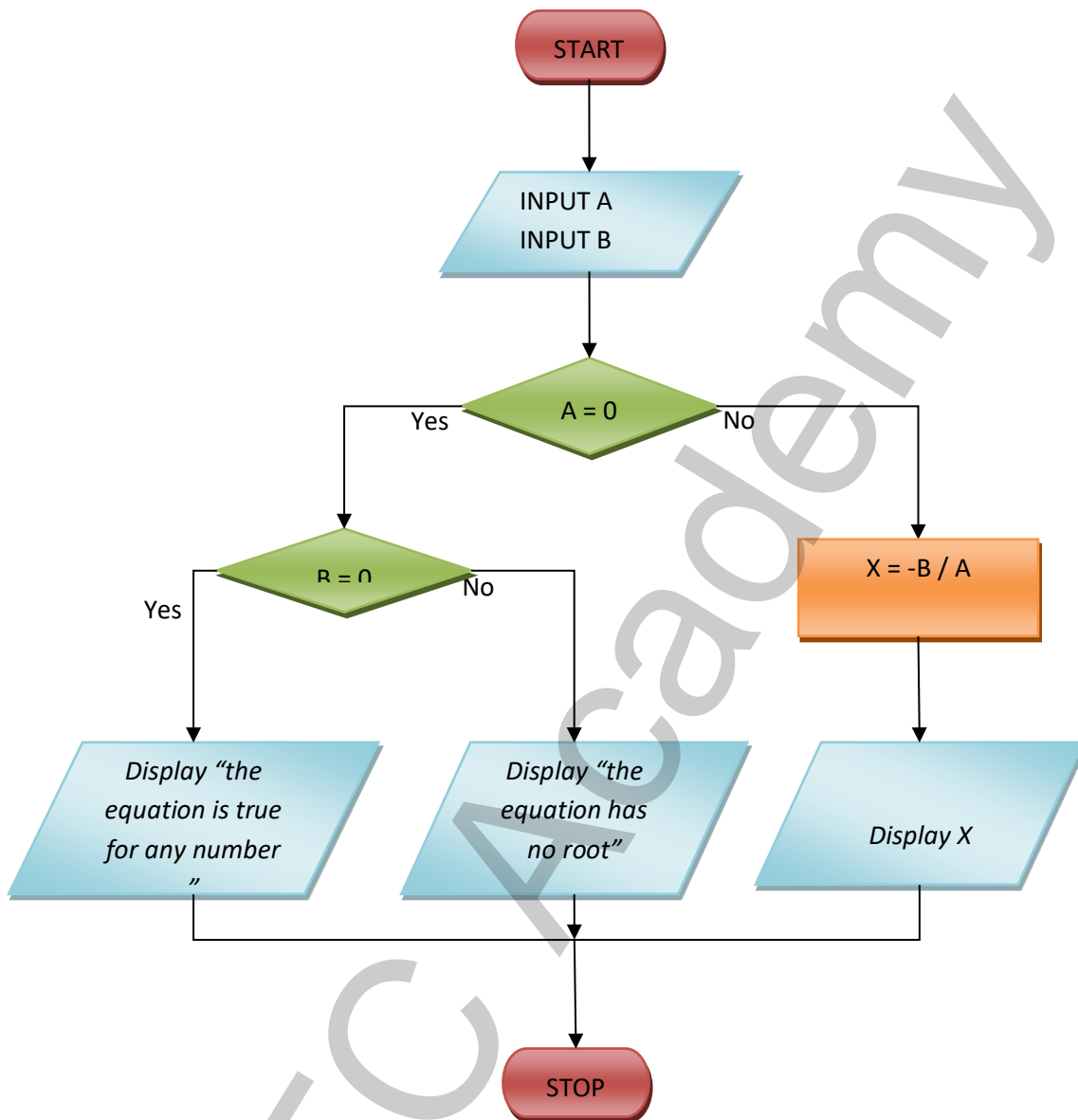
Exercise 1:

Read and understand the following flowchart:

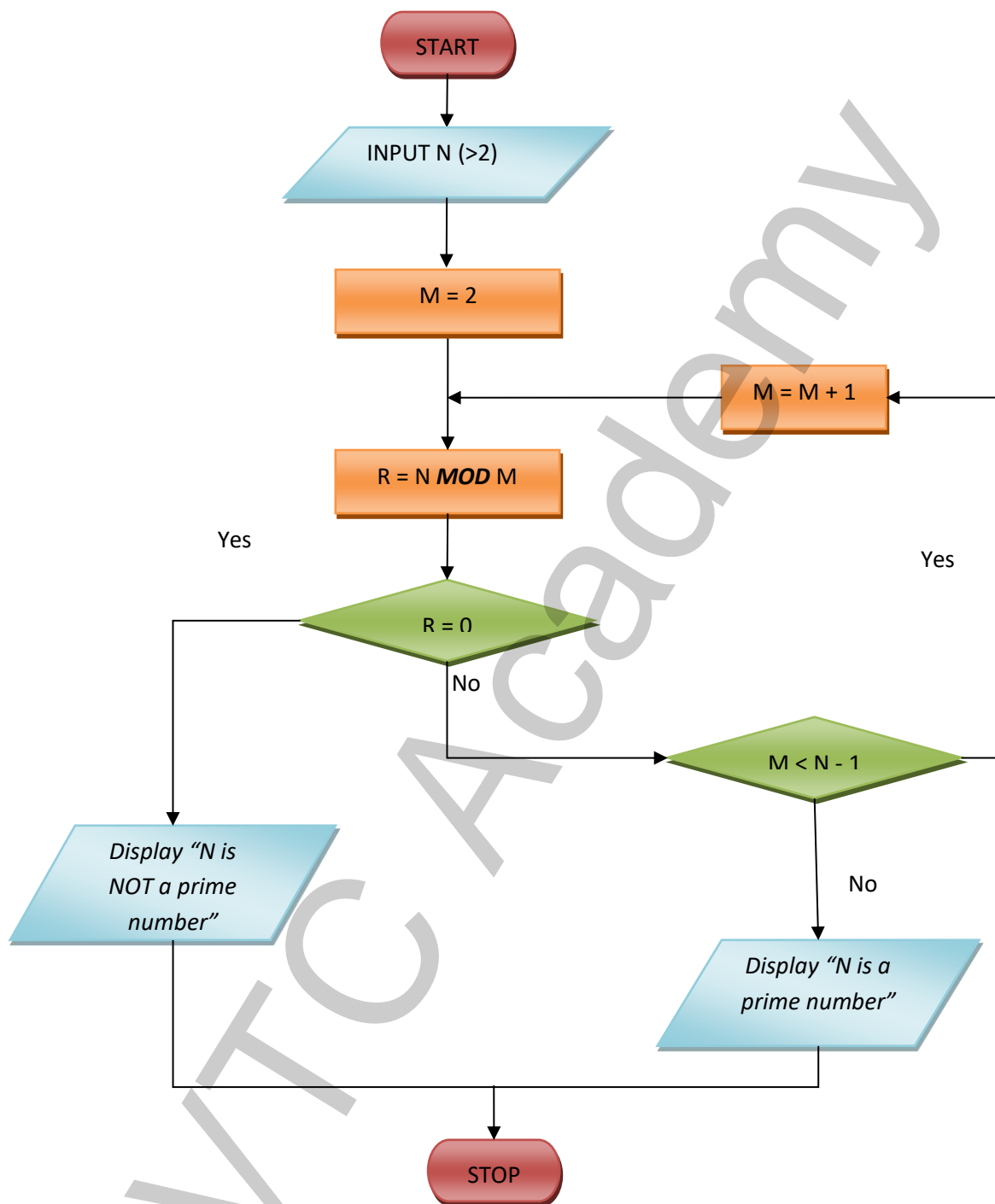
1. Flowchart 1:



2. Flowchart 2:



3. Flowchart 3:



Exercise 2:

Write algorithms and draw flowcharts to solve the following problems:

1. Solve quadratic equations: $ax^2 + bx + c = 0$.
2. Display even numbers from 0 to n, with n entered from console (check $n > 0$).
3. Display prime numbers from 0 to n, with n entered from console (check $n > 0$).