

# MAT 115E Introduction to Programming Language

## Lab-4 / CRN : 21132

---

Instructor: Lecturer Evren Tanrıöver

Lab Assistant: Res. Asst. Şeyma Gönül

---

### 1 Question 1

Write a C source code that accomplishes the followings:

#### A USER DEFINED FUNCTION:

- Write a **C function** that takes a character as parameter and tests whether or not the character is alphabet or not. A character is considered to be an alphabet if it is between **a-z** or **A-Z**. Your function returns 1 if the character is alphabet and 0 if not.

#### MAIN FUNCTION:

- Generate a random character between the values 32 and 126 in ASCII table. (only printable characters)
- Pass this random character to the function you coded.
- Print the returned value from the user defined function.

#### **Sample Output:**

We assume that \* is the random character generated by program. User defined function is calling for the character \* in main function. Then, result will be displayed in main function in the following form:

> \* is alphabet or not : 0

### 2 Question 2

Write a C source code that accomplishes the followings:

#### A USER DEFINED FUNCTION:

- Write a **C function** that takes three edge lengths of the triangle as parameters and tests whether or not these three edge lengths form a triangle.

#### MAIN FUNCTION:

- Generate three numbers between 3 and 10 using C built-in function rand().
- Pass those numbers to the function you coded.
- Print the returned value from the user defined function.

#### **Sample Output:**

We assume that three edge lengths generated randomly by program are 6, 3, and 8, respectively. Your function should return 1 if you pass those values to the function. In main function, you can print the simple message as below:

> Do these wires form a triangle ? → 1

**NOTE:** For both questions, you are prohibited from using the if-else selection structure. Instead, you should only rely on relational and logical operators to yield results of 0 or 1.