Question 1

- Write a C++ program to decide whether the given three numbers are pythagorean triple or not. This means you will take three numbers as input from the user and check if any order of the number holds the property $c^2 = a^2 + b^2$. [Marks: 7]

Question 2

- Write a C++ program for grading students. This program will take a student's current absolute marks and give his letter grade as output. [Marks: 8]
    - A student having less than 50 marks will be assigned an F.
    - A student having 50-59 absolutes will be assigned a D grade.
    - A student having 60-69 absolutes will earn a C grade.
    - A student having 70-79 absolutes will earn a B grade.
    - A student having 80-89 absolutes will earn an A grade.
    - A student having 90-100 absolutes will earn an A+ grade.

Question 3

- Write a C++ program to check whether a character is an alphabet, digit or special character. [Marks: 3]

Question 4

- Write a simple C++ Calculator. [Marks:8]
    - You will take two numbers from the user as input.
    - Then the user will be asked to enter the operator. (Operator will be a single character.)
    - For now operatore can only be one of these {'+','-','*','/','%'}.
    - After taking that operator you will compute the result and output.

Question 5

- Write a C++ Program which does the following [Marks:10]
  - Take a character from User.
  - Then take a number from the user.
  - If the character is uppercase and vowel then take the square of the number and output the result as “The character was Uppercase Vowel Letter and the result is : value of the square of the number”
  - If the character is uppercase and not vowel multiply the number with 2 and print the result as “The character was Uppercase Consonant Letter and the result is : value of (2* number) ”.
  - If the character is lowercase and Vowel, print the cube of the number as “The character was Lowercase Vowel Letter and the result is : value of the cube of the number ”.
  - If the character is lowercase and not Vowel, print the number after multiplying it with 3. “The character was Lowercase Consonant Letter and the result is : value of (3* number) .”
  - If the character is a special character then just print the number itself as “The character is a special character and the result is : value of number”.