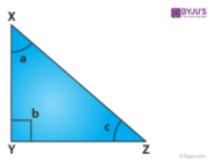
Advanced Programming Lab 2

- 1. Check Prime Number:
 - a. Write a program that checks whether a given number is a prime number. A prime number is greater than 1 (A prime number has no positive divisors other than 1 and itself)
 - b. Bonus points for efficient solutions
- 2. **Check Palindrome Number:** Implement a program that checks whether a given number is a palindrome.
- 3. **Simple Calculator:** Create a basic calculator program that performs addition, subtraction, multiplication, and division based on user input. Use a switch statement to select the operation.
- 4. **Print Triangle:** Develop a program to print a right-angled triangle pattern using a for loop. Allow the user to input the height of the triangle.



5. **Star Pattern:** Create a program that prints a diamond pattern of stars using nested for loops. Allow the user to input the size of the diamond.

