

Design and Analysis of Algorithm

Lab Worksheet 02

1. Create a program to find the product of two numbers and print the output.
2. Write a C program to compute the quotient of two integers and display the result (integer division).
3. Develop a program to calculate the remainder of division between two integers.
4. Write a program to calculate the area of a rectangle given its length and width as 10 and 5. Then update the program to accept the length and height as user inputs and process the activity.
5. Create a C program to calculate the area of a circle based on its radius. Use the formula:
$$\text{Area} = \pi * r * r$$
 (where π is approximately 3.14159).
6. Write a program to calculate the total cost of a purchase, including tax. Give the item price and tax rate as user inputs (in percentage).
7. Create a C program to convert a given number of minutes into hours and minutes. For example, 145 minutes should be displayed as 2 hours and 25 minutes.
8. Write a program to find the sum of all elements in an integer array. Enter the array elements as User inputs.
9. Write a C program to find the maximum element and minimum element in an integer array.
10. Develop a C program to get a summation of similar index values in 2 integer arrays and store it in new array. Display the summated array elements at screen.