

Programming Fundamentals

Function

Lab # 05

Q1: Write a program that converts Celsius to Fahrenheit through a function. Your function should accept one argument and prints the results within the function.

Formula: $F = 9/5C + 32$

Q2: Write a program in python that contains a function to calculate third angle of triangle.

- Declare two angles.
- The function should take two angles as parameters.
- The function will calculate the third angle and return it.
- The program should print value of third angle outside of function.

Q3: Write a program in python that contains a function to reverse a three-digit number.

- The function should take the number as parameter.
- The function should reverse the number and print the reversed no within the function

Hint: Use modulus %

E.g.: 123 is your integer. Output: 321

Q4: Write a program that stores the monthly costs for the following expenses generated from operating his or her automobile: loan payment, insurance, gas, oil, tires, and maintenance. The program should then display the total monthly cost of these expenses, and the total annual cost of these expenses. Your program should have two functions named calcMonthlyExp() and calcYearlyExp().

Note: The calcMonthlyExp() will only calculate the monthly expenses and returns the result. The calcYearlyExp() will get the result from calcMonthlyExp() and then calculates the yearly expenses and returns the yearly expenses to main. Monthly expenses should be displayed in calcMonthlyExp() function and yearly expenses should be displayed in main function.

Note: Your function should only call calcYearlyExp.

Q5: A university does not allow its student to sit in the exam if his/her attendance is less than 80% in any course/lab.

Write a program to ask a student about total number of classes scheduled by instructor during the whole semester and total number of classes he/she attended during the whole semester. Now pass both integers to a function named calculateAttendance(int classesAttended, int classesTotal) which should calculate, display the attendance and print the decision if he/she is allowed to sit in the exam or not.

Sample Output:

Enter total classes scheduled: 10

Enter total classes attended: 9

Your attendance is: 90%

You are allowed to sit in the exam

Q6: Suppose that the cost of sending an international fax is calculated as follows:

Service charges \$3.00; \$.20 per page for the first 10 pages; and \$0.10 for each additional page. Design a function that takes the number of pages to be faxed as a parameter. The Function then uses the number of pages to be faxed to calculate and return the amount due.

Ask user to enter number of pages and pass it to function