

Extra Problems – Function calls

1. Write a program in C to find the sum of the series $1!/1+2!/2+3!/3+4!/4+5!/5... +n!/n$ using the function. Take user input from main().
 - a. Use call by value
 - b. Use call by reference
2. Write a program in C to print all perfect numbers in a given range input by user using the function. A perfect number is a positive integer that is equal to the sum of its proper divisors. The smallest perfect number is 6, which is the sum of 1, 2, and 3. Other perfect numbers are 28, 496, and 8,128.
 - a. Use call by value
 - b. Use call by reference
3. Write a program that reads three points, $(x_1; y_1)$, $(x_2; y_2)$, and $(x_3; y_3)$ and determines whether they represent the vertices of a right-angled triangle. If so, the program must identify the hypotenuse, and print the value of one of the angles in radians.
 - a. Use call by value
 - b. Use call by reference
4. Write a function called **print_bits** that takes as input a positive integer n and prints the binary representation of n.