Digital Assignment - 2

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First question:

Write a c program to find the sum of the series 1! /1+2! /2+3! /3+4! /4+5! /5 ... n! /n by utilizing user defined recursive function? Get the value of n from the user. Do not use any storage classes. Without returning the calculated result from the function, display the result in main

Answer:

#include <stdio.h>

void sum\_series(int n, float \*sum);

int main() {

int n;

float sum = 0;

printf("Enter n:\n");

scanf("%d", &n);

sum\_series(n, &sum);

printf("Sum of the series: %f\n", sum);

return 0;

}

void sum\_series(int n, float \*sum) {

if (n == 0) {

return;

}

float term = 1;

int i;

for (i = 1; i <= n; i++) {

term \*= i;

}

\*sum += term / n;

sum\_series(n-1, sum);

}