

C Language Programming: Homework

Assigned on 12/07/2023(Thursday), Due on 12/14/2023(Thursday)

This assignment alllows you to practice passing pointers to function into another function. Write a complet program to do the following:

1. Assume there is a function declared as (1) ***double power(double, int)*** that calculates x^n if we call `power(x, n)`, a function declared as (2) ***double multiply(double, int)*** that calculate $x*n$ if we call `multiply(x, n)`, and a function declared as (3) ***double divide(double, int)*** that calculate x/n if we call `divide(x, n)`, where `x` must be double and `n` be integer.
2. Write a function ***double powerpower(...)*** that can compute $(x^n)^m$, $(x*n)^m$, $(x/n)^m$, where `powerpower()` must use four parameters: a pointer to function, one double and two integers.
3. Also remember to write functions ***divide()***, ***multiply()*** and ***power()***
4. use typedef to define a new type ***F*** which is a pointer to function
5. When executing your program, you can choose the values for `x`, `n`, and `m` by using `argc` and `argv`.
6. write the documentation