



Functions

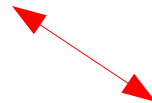
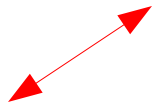
- Single Result Functions
Section 5.1
- Debugging
- Makeup Homework

Library Functions

- #include <iostream>
 - cout
 - cin
- #include <fstream>
 - ifstream ff("mydata", ios::in);
 - ff > value;
- #include <cmath>
 - sqrt(value);
 - fabs(value);

Library Functions

- Library functions are programs that are compiled and stored in a file called a libraries.
- Functions have
 - Inputs—arguments or parameters
 - outputs—return values
- Example
 - `newvalue=sqrt(value);`

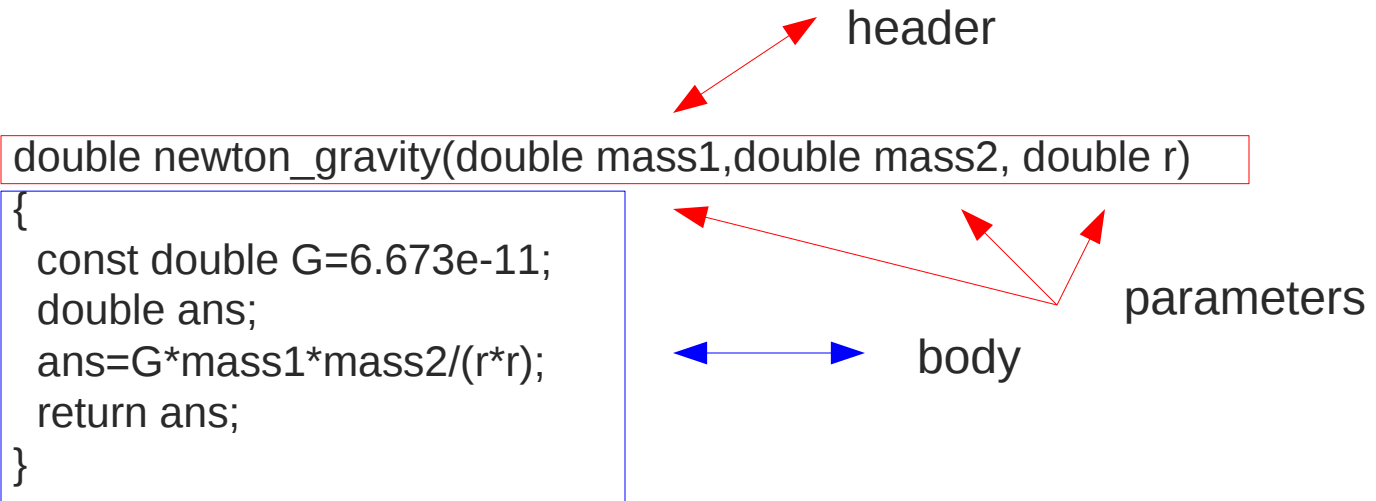


Return value

argument

Building Your Own Functions

Newton law of gravity $F=G*M1*M2/(r*r)$



gravity.cpp

Function's Memory

- Variables declared in a function have different memory location than variable in main or any other function even if they have the same name
- Function parameters that are declared double, float , int, bool, char have different memory locations than the arguments variables.
- Exercises #1,3 page165.

Debugging

- Attempt.
- `surface.txt`
- You may submit a solution or a correction to your original submission for a 2 point deduction.
- If you have problems with the 160 lab, please let me know so I can get it fixed.

Homework

- Makeup Program 1, page 149, due 10-12 by 5:00 pm.

Hand in: email to ruttan@cs.kent.edu with the subject: 10061 Submission Homework 2

- fabs(x) calculates the absolute value of the variable x
- sqrt(x) calculates the square root of the variable x
- #Include <cmath>