CS1428 Lab 10

# Name: Section:

1. (15 pts) Write a double type function named **mult**. The function should have an **integer** parameter named ***a*** and an **integer** parameter named ***b***. When **mult** is called, it should calculate and return the product of ***a*** and ***b****.*
2. (10 pts) Write the function prototype for the **mult** function that you wrote in

question 1:

1. (10 pts) A program contains the following function:

int cube(int num)

{

return num \* num \* num;

}

Write some code that displays the first 4 perfect-cubes using this function. (Hint: “for”)

1. (25pts) The following program asks the user to enter two numbers. What is the output of the program if the user enters 12 and 14? Please write your answer on the next page.

#include <iostream>

using namespace std;

void func1(int &, int &);

void func2(int &, int &, int &);

void func3(int, int, int);

int main()

{

int x = 0, y = 0, z = 0;

cout << x << “ “ << y << “ “ << z << endl;

func1(x, y);

cout << x << “ “ << y << “ “ << z << endl;

func2(x, y, z);

cout << x << “ “ << y << “ “ << z << endl;

func3(x, y, z);

cout << x << “ “ << y << “ “ << z << endl;

return 0;

}

void func1(int &a, int &b)

{

cout << “Enter two numbers: ”;

cin >> a >> b;

}

void func2(int &a, int &b, int &c)

{

b++;

c--;

a = b + c;

}

void func3(int x, int y, int z)

{

x = y – z;

}

Output:

1. (40 pts) Write a program (**lab10\_01.cpp**) that calculates the gross pay for employees. Your program should:
   1. Have the following **global constants** declared:

PAYRATE = 20.55

BASEHOURS = 40.0

* 1. Prompt for the number of employees.

*How should you use this information?*

* 1. Ask the user to enter the number of hours worked by each employee.

*How should you store this information?*

* 1. Write and call a function to determine the employee’s pay.

*What needs to be passed to this function?*

* 1. Write and call a function to display the total pay for a given employee.

if the hours worked is greater than the BASEHOURS value

pay = BASEHOURS \* PAYRATE +

(hoursWorked – BASEHOURS) \* (PAYRATE \* 1.5)

else

pay = hoursWorked \* PAYRATE

**Note:** Upload your source code **lab10\_01.cpp** and attach a print out to this worksheet.