#  Functions Homework

1. Give the function header for each of the following functions.

a) Function areaRectangle takes two double arguments, length and width, and returns a double value.

double areaRectangle( double length, double width )

b) Function max takes four integers, w, x, y, z, and returns an integer.

int max( int w, int x, int y, int z )

c) Function outputHeaders does not receive any arguments and does not return a value.

void outputHeaders( void )

d) Function getValue takes an integer argument, num, and returns a char.

char getValue( int num )

2. Suppose that the function foo() has the following definition:

int foo (int a, int b, int c) {

…

}

Which are the following statements are legal? Assume that i has type int and x has type double.

1. i = foo (10, 20, 30); legal
2. x = foo (10, 20, 30); legal
3. i = foo (5.25, 3.45, 7.22); not legal
4. x = foo (5.25, 3.45, 7.22); not legal
5. foo (10, 20, 30); legal
6. foo (10, 20); not legal

3. Which of the following would be valid prototypes for a function that returns nothing and has one double parameter?

1. void foo (double x); valid
2. void foo (double); valid
3. void foo (x); not valid
4. foo (double x); not valid

4. mp3s cost $1.25 each, CDs cost $3.25 each, and DVDs cost $12.75 each. Write a function, buyMusic, that takes three parameters representing the number of mp3s, CDs, and DVDs and returns the total dollar cost.

double buyMusic(int mp3, int cd, int dvd) {

double cost;

cost = mp3\*1.25 + cd \* 3.25 + dvd \* 12.75;

return cost;

}

or simpler:

double buyMusic (int mp3, int cd, int dvd) {

return mp3 \* 1.25 + cd \* 3.25 + dvd \* 12.75;

}