

COMP 166 Week 5 Quiz

Name: _____

1. Rewrite the following code fragment using a `while` loop instead of a `for` loop.

```
int k;
int sum = 0;
for (k = 0; k < 50; k++) {
    sum = sum + k;
}
printf("sum: %i\n", sum);
```

converted
=====→

2. Use a `while` loop to read integers from a file until it reads a negative value. Display the sum of the integers read in, including the final, negative value. Do not write an entire program; just write the loop and any necessary variable declarations and initializations.

You may assume a file pointer variable, `f`, has been declared and has correctly opened the data file. You simply have to use the variable when reading in the data.

You do not have to worry about testing for end-of-file. The file *will* contain a negative value somewhere (possibly on the first line).

HINT: use the previous question to see how to add up a sequence of numbers one value at a time.

3. Write a function declaration (prototype) for a function named `foo` that returns an `int`, and takes a `char` as a parameter..

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4. Suppose you have written a function called `power` that takes two parameters, `a` and `b`, and returns `ab`. `a`, `b`, and the return value are all `doubles`. Write a code fragment that uses this function to calculate `73.2` and outputs the result to the screen.

You may assume the function is already written and the prototype was properly placed. You just need to write the code that *calls* the function with the correct parameters and outputs the result. Declare any variables that you use (if any), but do not write the whole program.

DO NOT WRITE THIS FUNCTION!! This question only asks you to **CALL** the function with the given parameters, and output the result.

5. Which of the following gives the proper code to open a file named “`data.txt`” for reading, and assigns a variable to reference this file?

- (a) `FILE * f = open("data.txt", r);`
- (b) `FILE * f = fopen("data.txt", "r");`
- (c) `FILE f = fopen(data.txt, r);`
- (d) `FILE f = open("data.txt", "r");`