

Dashboard / My courses / Fall 2017 / CSCI2270-F17 / Quizzes  
/ Quiz 2 - Recursion, Pointers, Dynamic Memory

**Started on** Thursday, September 21, 2017, 10:11 PM

**State** Finished

**Completed on** Thursday, September 21, 2017, 10:24 PM

**Time taken** 13 mins 15 secs

**Grade** 32.50 out of 50.00 (65%)

**Question 1**

Partially correct

2.50 points out of 5.00

What must a function have to be considered a recursive function? Select all that apply!

Select one or more:

- ☐ a. Tracking the index in the list of the stage in the recursion
- ☐ b. It must return a value
- ☐ c. A conditional that eventually becomes true to stop the recursion
- ☒ d. the function calls itself inside the function ✓

Your answer is partially correct.

You have correctly selected 1.

## Question 2

Correct

10.00 points out of 10.00

Given the code below, write the output (from cout) of this code.

Note, all output is separated by commas or colons (no whitespace).

```
#include <iostream>
using namespace std;

int recursiveFunc(int n)
{
    cout << n << ",";
    if (n <= 1)
    {
        return n;
    }

    return recursiveFunc(n - 1) + recursiveFunc(n - 2);
}

int main(int argc, char* argv[])
{
    int returnValue = recursiveFunc(3);
    cout << "Returning:" << returnValue;
    return 0;
}
```

Answer:



**Question 3**

Correct

5.00 points out of 5.00

What is the output of the following code fragment?

```
int v1=2, v2=-1, *p1, *p2;  
p1 = &v1;  
p2= &v2;  
p2=p1;  
cout << *p2 << endl;
```

Select one:

- ☐ a. 1
- ☒ b. 2 ✓
- ☐ c. -2
- ☐ d. -1

**Question 4**

Correct

5.00 points out of 5.00

Which of the following are valid based on the following code segment? Select all that apply!

```
double aValue = 9.7;
```

Select one or more:

- ☐ a. `double* bVal = *aValue;`
- ☐ b. `double &bVal = *aValue;`
- ☐ c. `*aValue = 7.2;`
- ☒ d. `double* bVal = &aValue;` ✓
- ☐ e. `double* bVal = aValue;`

Your answer is correct.

## Question 5

Correct

10.00 points out of 10.00

Write C++ code that creates an integer variable called **number**. Dereference a given pointer **gPointer** and places that value into the variable **number**. The pointer **gPointer** will have been declared and set to point to a value before your code runs.

Your code will be placed inside the main function with all the appropriate #includes.

After your code runs, the test case will execute the following code:

```
cout << "number = " << number << endl;
```

For example:

Test	Result
int x = 9; int *gPointer = &x;	number = 9
int x = 834; int *gPointer = &x;	number = 834

**Answer:** (penalty regime: 0,5,10,... %)

```
1 int number;
2 number = (*gPointer);
```

	Test	Expected	Got	
✓	int x = 9; int *gPointer = &x;	number = 9	number = 9	✓

	Test	Expected	Got	
✓	<pre>int x = 834; int *gPointer = &amp;x;</pre>	number = 834	number = 834	✓
✓	<pre>int x = 746743; int *gPointer = &amp;x;</pre>	number = 746743	number = 746743	✓

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.

### Question 6

Incorrect

0.00 points out of 10.00

Given the array {1, 2, 6, 88, 102, 810, 1000}, write in order the values a binary search algorithm will progress through to find the value of 6. Include the found value of 6 at the end of the list. Separate each value with a single comma and no space.

Example:

Given array {10, 12, 22, 33, 42, 55, 72}; search for 42

Your output: 33,55,42

Answer: 2,88,6



### Question 7

Incorrect

0.00 points out of 5.00

In GDB, what is the name of the command to move to the next breakpoint? (write ONE word only)

Answer: next

