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/ Quiz 2 - Recursion, Pointers, Dynamic Memory

Started on Friday, September 22, 2017, 7:20 AM

State Finished

Completed on Friday, September 22, 2017, 7:33 AM

Time taken 13 mins 21 secs

Grade 35.00 out of 50.00 (70%)

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. If the function is named 'getSum' then there is a call to getSum inside the getSum function ✓
- ☐ b. Maintain the index of the phase in the recursion
- ☐ c. An integer return value
- ☐ d. A base case

Your answer is partially correct.

You have correctly selected 1.

Question 2

Correct

10.00 points out of 10.00

Given the function below, write the output (from cout) of this function. Note that there are no spaces in the printed output.

```
void myFunc( int s[ ], int n )
{
    if(n-1 < 0)
        return;

    cout << s[n-1];

    if(n-1>0)
        cout << ',';
    |
    myFunc(s, n-1);
}
int main( )
{
    int foo [5] = { 3, 5, 1, 8, 9 };
    myFunc(foo, 5);
    return 0;
}
```

Answer: 9,8,1,5,3



Question 3

Incorrect

0.00 points out of 5.00

Which of the following assigns to p1 the pointer to the address of value?

Select one:

- ☐ a. p1=value;
- ☒ b. *p1=&value✖
- ☐ c. p1=&value;
- ☐ d. &p1 = *value;

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!

```
char init = 'A';
```

Select one or more:

- ☒ a. char* last = &init;✔
- ☐ b. char* last = init;
- ☐ c. char &last = *init;
- ☐ d. char* last = *init;
- ☐ e. *init = 'B';

Your answer is correct.

Question 5

Correct

7.50 points out of 10.00

Write C++ code that creates an integer pointer named **cPointer** that points to a variable named **q** by referencing the memory address of the variable **q**. The variable **q** has been declared and initialized 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 << "*cPointer = " << *cPointer << endl;
```


For example:

Test	Result
int q = 11;	*cPointer = 11
int q = 745	*cPointer = 745

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

```
1 int *cPointer;
2 cPointer = &q;
```

	Test	Expected	Got	
✓	int q = 11;	*cPointer = 11	*cPointer = 11	✓
✓	int q = 745	*cPointer = 745	*cPointer = 745	✓
✓	int q = 6382434;	*cPointer = 6382434	*cPointer = 6382434	✓

Passed all tests! 

Correct

Marks for this submission: 10.00/10.00. Accounting for previous tries, this gives **7.50/10.00**.

Question 6

Correct

10.00 points out of 10.00

Given the array {a, d, e, k, m, p, z}, write in order the values a binary search algorithm will progress through to find the value z. Include the found value of z at the end of the list. Separate each value with a single comma and no spaces. Note all letters are lower case. The values are compared by alphabetical order (i.e. $a < b < c < d \dots$).

Example:

Given array {a, b, c, d, e, f, g}; search for e

Your output: d,f,e

Answer:



Question 7

Incorrect

0.00 points out of 5.00

In GDB, what is the name of the command to execute the statement without going into a function on a function call? (write ONE word only)

Answer:

