### Feedback — Qualifying Quiz

Help

You submitted this quiz on Mon 20 Oct 2014 11:17 AM PDT. You got a score of 16.50 out of 20.00.

This test is meant to test your background and understanding of the basic computer science skills you will need to do well in this class. The outcome of the test is for your use only; it will not affect whether you can register for the class. As such, we recommend that you do not research the answers on the Internet, but answer the questions to your best recollection.

### **Question 1**

Consider the following code fragment: sizeof(int\*) == sizeof(int)

Which one of the following is true about it?

Your Answer	Score	Explanation
This fragment always evaluates to 1 (assuming it doesn't crash)		
This fragment always evaluates to 0 (assuming it doesn't crash)		
This fragment will always crash		

1 of 15



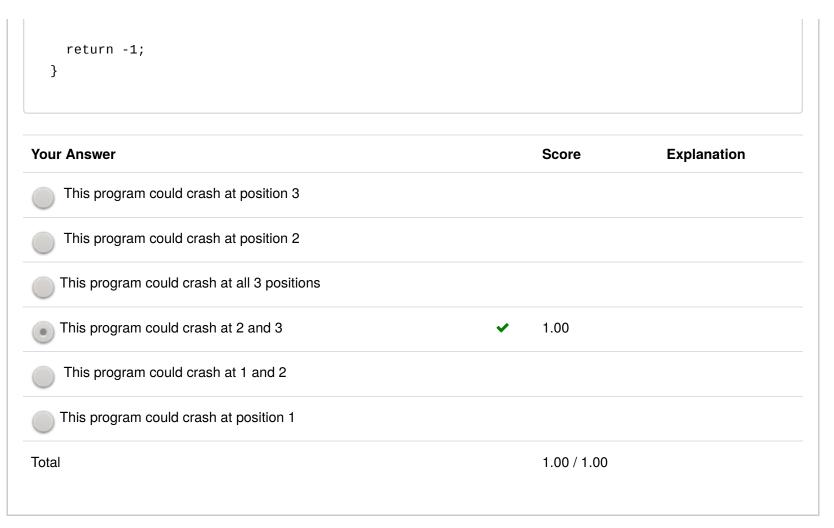
Consider the following code

```
#include <stdio.h>
#include <stdlib.h>
int main(int argc, char *argv[]) {
    unsigned int i;
    unsigned int k = atoi(argv[1]);
    char     *buf = malloc(k); /* 1 */

    if(buf == 0) {
        return -1;
    }

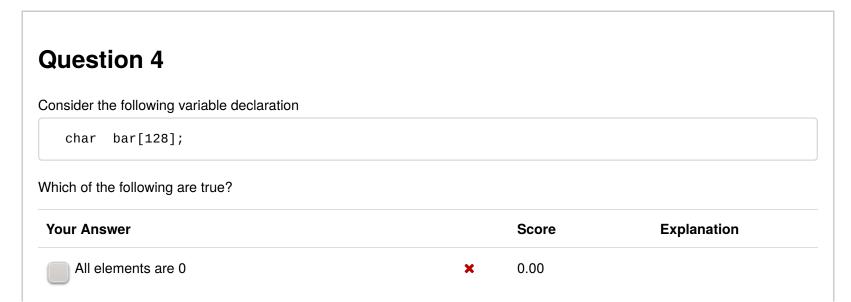
    for(i = 0; i < k; i++) {
        buf[i] = argv[2][i]; /* 2 */
    }

    printf("%s\n", buf); /* 3 */</pre>
```



Which one of the following is equivalent to c[b] if c is of type int32\_t\* and b is of type int32\_t?

Your Answer		Score	Explanation
*(c+b)	~	1.00	
*c+b			
-1 * b[c]			
none of the above			
c[b][0]			
Total		1.00 / 1.00	





Consider the following program.

```
#include <string.h>
int foo() {
  char bar[128];
  char *baz = &bar[0];

  baz[127] = 0;

return strlen(baz);
}
```

What are possible outcomes from running this function? Check all that apply:

Your Answer		Score	Explanation
returns -1	×	0.00	

returns 127	×	0.00
crash	×	0.00
returns 128	×	0.00
returns 0	×	0.00
Total		0.00 / 2.00

Consider the following code fragment.

char blah[] = "fizzbuzz";
printf("%s\n", blah+4);

What happens if we try to compile and run this code? Check all that apply.

Your Answer		Score	Explanation
The program is illegal C and may not compile	×	0.00	
The program outputs "fizz"			

The program outputs "buzz"	
The program outputs a blank line depending of	n the size of pointers
Total	0.00 / 1.00

Which of the following are true of memory returned via the malloc function? Check all that apply.

Your Answer		Score	Explanation
The memory is zero-initialized	×	0.00	
It must be manually released by the application	~	1.00	
It is write-only	×	0.00	
It is automatically released by the operating system when the pointer is out of scope	×	0.00	
Total		1.00 / 1.00	

Which of the following are true statements about the program stack?

Your Answer		Score	Explanation
Management of the stack is handled automatically by the architecture	×	0.00	
The stack is managed by code emitted by the compiler	×	0.00	
It is used to store global variables while executing a function	×	0.00	
It is used as the source of memory returned by malloc()	×	0.00	
It is used to store local variables while executing a function	<b>~</b>	0.50	
Total		0.50 / 1.00	

### **Question 9**

Which of the following are true of the X86 call instruction?

Your Answer Score Explanation

Pushes the instruction pointer value onto the stack	<b>~</b>	1.00
Pushes flag registers onto the stack	×	0.00
Branches to a specified address	<b>~</b>	1.00
Its target address may be specified in a general-purpose register	<b>~</b>	1.00
Total		3.00 / 3.00

Consider the following program

```
#include <stdlib.h>
#include <stdio.h>
#include <string.h>
int main() {
  int **blah2 = malloc(sizeof(int*)*N);
  int *special = NULL;
  int i, j;
  for(i = 0; i < N; i++) {
    int *tmp = (int *)malloc(sizeof(int)*M);
    memset((void *)tmp, 0, sizeof(int)*M);</pre>
```

```
if(i > N) {
    special = &tmp[3];
}

blah2[i] = tmp;
}

if(special != NULL) {
    *special = 7;
}

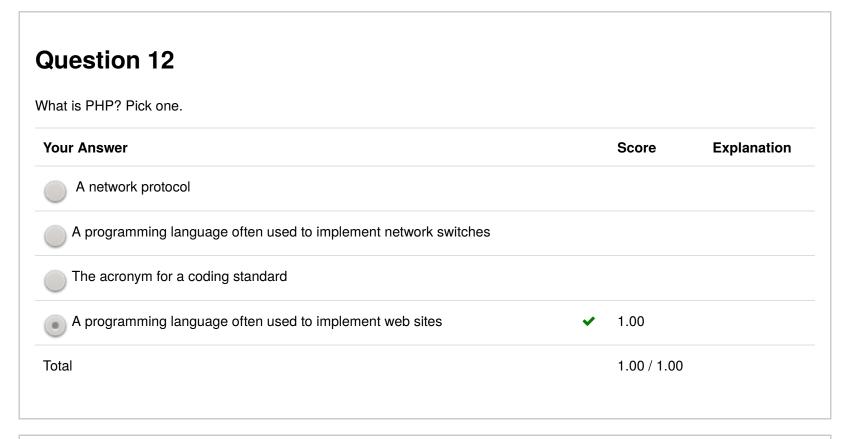
for(i = 0; i < N; i++) {
    for(j = 0; j < M; j++) {
        printf("%d ", blah2[i][j]);
    }
    printf("\n");
}</pre>
```

Assuming we #define N and M to be positive integers, then which of the following is true

Your Answer		Score	Explanation
This program outputs a zero NxM matrix	•	1.00	
This program crashes			
This is not a valid C program			

This program outputs a random NxM matrix	
This program outputs a matrix with at least one element being 7	
Total	1.00 / 1.00

# Question 11 What is TCP? Your Answer Score Explanation It is a protocol that supports reliable data transfer on the Internet ✓ 1.00 It is a protocol often implemented on top of HTTP It is connectionless It ensures data confidentiality Total 1.00 / 1.00



### Question 13 Which of the following statements about HTML are true? Your Answer Score Explanation HTML is a kind of URL ★ 0.00

HTML documents have tags that identify different sorts of data	<b>~</b>	1.00
Web browsers render HTML content served by web sites	<b>~</b>	1.00
HTML is a text-based format (as opposed to a binary format)	~	1.00
Total		3.00 / 3.00

## Question 14 What is gcc? Your Answer Score Explanation An interpreter ✓ 1.00 A compiler ✓ 1.00 A virtual machine ✓ 1.00 / 1.00 Total 1.00 / 1.00

Question 15 The shell command cd; ls *.xml			
Will list all files ending in the xml suffix in the previous working directory			
Will list all files ending in the xml suffix in user's home directory	~	1.00	
Will list the file *.xml in the current directory			
Will list all of the files listed in the given XML file			
Total		1.00 / 1.00	

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