Capitulo 7

This activity contains 26 questions.

1. *Section 7.2 Arrays*

7.2 Q1: An array is not:

- *Made up of different data types.*
- *Subscripted by integers.*
- *Declared using braces, [].*
- *A consecutive group of memory locations.*

2. *7.2 Q2: Assuming that int a has a value of 3 and that integer array b has 7 elements, what is the correct way to assign the value of the third element plus 3, to the fifth element of the array:*

- *b[a + 1] = b[a] + 3;.*
- *b[a] + 1 = b[a + 3];.*
- *b[a + 1] = b[a - 1] + 3;.*
- *b[a + 2] = b[a] + 3;.*

3. *7.2 Q3: Which of the following is not true?*

- *The last element of an array has position number one less than the array size.*
- *The position number contained within square brackets is called a subscript.*
- *The first element of an array is the zeroth.*
- *A subscript cannot be an expression.*

4. *Section 7.3 Declaring Arrays*

7.3 Q1: Which statement would be used to declare a 10-element integer array c?

- *c = int[10];.*
- *int c[10];.*
- *int array c[10];.*
- *array c = int[10];.*

5. *Section 7.4 Function Definitions with Multiple Parameters*

7.4 Q1: Which of the following is not a correct way to initialize an array?

- *d. int n[5] = { 9, 1, 9 };.*
- *int n[5] = { 7 };.*
- *int n[] = { 0, 7, 0, 3, 8, 2 };.*
- *int n[5] = { 0, 7, 0, 3, 8, 2 };.*

6. *7.4 Q2: Constant variables:*

- *Can be used to specify array sizes, but this makes programs harder to understand.*
- *Can be used to specify array sizes, thereby making programs more scalable.*
- *Can be assigned values in executable statements.*
- *Do not have to be initialized when they are declared.*

7. *7.4 Q3: Referencing elements outside the array bounds:*

- *Can result in changes to the value of an unrelated variable.*
- *Enlarges the size of the array.*
- *Is impossible because C++ checks to make sure it does not happen.*
- *Is a syntax error.*

8. *7.4 Q4: Strings represented as character arrays cannot:*

- *Grow or shrink dynamically.*
- *Be initialized using string literals.*
- *d. Be used with cout and cin.*
- *Be initialized with initializer lists.*

9. *7.4 Q5: Which of the following character array declarations does not produce a string?*

- *char string1[] = { 't', 'e', 's', 't', '\0' };.*
- *char string1[] = " ";.*

- *char string1[] = "test";.*
- *char string1[] = { 't', 'e', 's', 't' };.*

10. *Section 7.5 Passing Arrays to Functions*

7.5 Q1: Unless otherwise specified, entire arrays are passed _____ and individual array elements are passed

- *By reference, by value.*
- *By value, by reference.*
- *By reference, by reference.*
- *By value, by value.*

11. *7.5 Q2: Which of the following is false about a function to which an array is being passed?*

- *It is being passed the address of the first element in the array.*
- *It is able to modify the values stored in the array.*
- *It knows the size of the array that is being passed.*
- *The array name is used as an argument in the function call.*

12. *7.5 Q3: To prevent modification of array values passed to a function:*

- *The array parameter can be preceded by the const qualifier.*
- *The array must be passed by reference.*
- *A copy of the array must be made inside the function.*
- *The array must be declared static in the function.*

13. *Section 7.6 Case Study: Class GradeBook: Using an Array to Store Grades*

7.6 Q1: In order to calculate the _____ of an array of values, the array values must be summed.

- *Minimum.*
- *Distribution.*
- *Average.*
- *Maximum.*

14. *Section 7.7 Searching Arrays with Linear Search*

7.7 Q1: Linear search can be used on:

- *Any of the above.*
- *Integer arrays.*
- *Unsorted arrays.*
- *Sorted arrays.*

15. *7.7 Q2: Linear search is highly inefficient compared to binary search when dealing with:*

- *Large, unsorted arrays.*
- *Small, unsorted arrays.*
- *Large, sorted arrays.*
- *Small, sorted arrays.*

16. *Section 7.8 Sorting Arrays with Insertion Sort*

7.8 Q1: Which statement about insertion sort is true?

- *The algorithm is very simple compared to other sorting procedures.*
- *A maximum of n comparisons are needed to sort the array, where n is the number of elements.*
- *No temporary variables are needed.*
- *Performance is maximized.*

17. *7.8 Q2: At the ith iteration of the insertion sort:*

- *The last i elements of the array are sorted.*
- *The ith element of the array is currently empty.*
- *The first i elements of the array are sorted.*
- *The ith element of the array is in its final position.*

18. *Section 7.9 Multidimensional Arrays*

7.9 Q1: A double subscripted array element declared as a[3][5] has how many elements?

- *13.*
- *d. 8.*
- *10.*
- *15.*

19. *7.9 Q2: Given the following declaration, what is the value of b[1][0]?*

```
int b[ 2 ][ 2 ] = { { 1 }, { 3 , 4 } };
```

- *1.*
- *This is not a valid declaration.*
- *3.*
- *0.*

20. *7.9 Q3: Which of the following does not declare a 2-by-2 array and set all four of its elements to 0?*

-
```
int b[ 2 ][ 2 ];
for ( int i = 0; i < 2; i++ )
   for ( int j = 0; j < 2; j++ )
      b[ i ][ j ] = 0;.
```
- *int b [2][2];*
  b[0][0] = b[0][1] = b[1][0] = b[1][1] = 0;.
- *int b[2][2] = { 0 };.*
- *All of the above initialize all of their elements to 0.*

21. *Section 7.10 Case Study: Class GradeBook Using a Two-Dimensional Array*

7.10 Q1: In a typical nested for loop structure used to process a two-dimensional array, following the end of the each execution of the inner for loop:

- *The outer for loop increments its counter variable.*
- *The outer for loop initializes its counter variable.*
- *The inner for loop increments its counter variable.*
- *The inner for loop initializes its counter variable.*

22. *Section 7.11 Introduction to C++ Standard Library Class Template vector*

7.11 Q1: Which of the following is not true of class template vector?

- *A vector object can be initialized with a copy of another vector by invoking the copy constructor.*
- *A vector can be assigned to another vector by using the assignment operator.*
- *A vector can only store data type int.*
- *The size of a vector can be changed after it is declared.*

23. *7.11 Q2: Using square brackets ([]) to retrieve vector elements _____ perform bounds checking; using member function at to retrieve vector elements _____ perform bounds checking.*

- *Does not, does not.*
- *Does, does not.*
- *Does not, does.*
- *Does, does.*

24. *Section 7.12 (Optional) Software Engineering Case Study: Collaboration Among Objects in the ATM System*

7.12 Q1: In a UML communication diagram, the first message passed during the processing of message 1 is called:

- *Message 1.1.*
- *Message 0.*
- *Message 1-1.*
- *Message 2.*

25. *7.12 Q2: A message between two objects in a UML sequence diagram is represented by:*

- *A dashed line with a filled arrowhead.*
- *A dashed line with a stick arrowhead.*
- *A solid line with a stick arrowhead.*
- *A solid line with a filled arrowhead.*

26. *7.12 Q3: An activation, represented by a thin vertical rectangle, on an object's lifeline indicates that:*

- ◯ *The object has terminated execution.*
- ◯ *The object is instantiated in memory.*
- ◯ *The object is waiting for another object to return control.*
- ◯ *The object is executing.*

Clear Answers / Start Over Submit Answers for Grading

Answer choices in this exercise appear in a different order each time the page is loaded.