

Quiz Submissions - 2D Arrays and Arrays of Pointers



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Attempt 1

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Submission View

Your quiz has been submitted successfully.

Question 1

1 / 1 point

Which of the following declares a two dimensional array of type `double` named `data` having 4 columns and 3 rows.

- ☐ `double data[4][3];`
- ☐ `double [3][4]data;`
- ☒ `double data[3][4] ;`
- ☐ `double [4][3] data;`

Question 2

1 / 1 point

What value is printed on the screen by the following code segment?

```
int data[][2] = { {2, 3}, {1, 4}, {3, 7} };  
printf("%d", data[2][1]);
```

Answer: 7

Question 3

1 / 1 point

Assuming `data` has been declared as a 2 dimensional array to have 3 rows and 4 columns and has initial values, select all lines of code that would successfully add 1 to the element in the fourth column of the second row.

- ☐ `data[2][4] = data[2][4] + 1;`
- ☒ `data[1][3] += 1;`
- ☐ `data[2][4] ++;`
- ☒ `data[1][3] ++;`
- ☐ `data[3][1] += 1;`
- ☒ `data[1][3] = data[1][3] + 1;`
- ☐ `data[2][4] += 1;`

☐ `data[4][2]++;`

Question 4

1 / 1 point

Assuming `data` has been declared as a 2 dimensional array to have 3 rows and 4 columns and has initial values, select the line of code that would successfully assign the value in the first column of the third row to the third column of the second row.

☐ `data[3][1]= data[2][3];`

☐ `data[3][2]= data[1][3];`

☒ `data[1][2]= data[2][0];`

☐ `data[2][0]= data[1][2];`

☐ `data[2][1]= data[0][2];`

☐ `data[2][3]= data[3][1];`

Question 5

1 / 1 point

Which of the statements below best describes what the following code does?

```
int data[][2] = { {2, 3}, {1, 4}, {3, 7} };
int index;
int sum = 0;
for (index=0; index<3; index++) {
    sum += data[index][1];
}
printf("%d", data[2][1]);
```

☐ Computes the sum of the entries in the second row of the array.

☐ Computes the sum of the entries in the first column of the array.

☐ Computes the sum of the entries in the first row of the array.

☒ Computes the sum of the entries in the last column of the array.

Question 6

1 / 1 point

Which of the statements below best describes what the following code does?

```
int data[][3] = { {2, 3, 4}, {6, 1, 4}, {4, 3, 7} };
int index;
int sum = 0;
for (index=0; index<3; index++) {
    sum += data[index][index];
}
printf("%d", sum);
```

☐ Computes the sum of the entries in the first column of the array.

☒ Computes the sum of the entries on the main diagonal of the array.

☐ Computes the sum of the entries in the first row of the array.

☐ Computes the sum of all the entries in the array.

Question 7

1 / 1 point

Suppose you want to write a function that takes a two-dimensional array of type `int` and that returns the sum of all the entries in the array. Assume that `NROWS` and `NCOLS` have been defined to be the number of rows and columns in the array respectively. What is the function prototype?

☐ `int sum_entries(int data[][NROWS]);`

☒ `int sum_entries(int data[][NCOLS]);`