

Assignment #7

CPSC 121: Computer Science I

Due: Wednesday November 14th, 2018 [Blackboard Upload Only]

Problem 1

Find the Errors:

- `int hours[3] = 8, 12, 16;`
- `int numbers[8] = {1, 2, , 4, , 5};`
- `float ratings[];`
- `char greeting[] = {'H', 'e', 'l', 'l', 'o'};`
`cout << greeting;`
- `void showValues(int nums)`
`{`
 `for (int count = 0; count < 8; count++)`
 `cout << nums[count];`
`}`
- `int array1[4], array2[4] = {3, 6, 9, 12};`
`array1 = array2;`

Problem 2

Consider the following array definition:

```
int values[5] = { 4, 7, 6, 8, 2 };
```

What does each of the following statements display?

```
cout << values[4] << endl; _____
```

```
cout << (values[2] + values[3]) << endl; _____
```

```
cout << ++values[1] << endl; _____
```

Problem 3

Write a program that lets the user enter 10 values into an array. The program should then display the largest and smallest values stored in the array.

Problem 4

Write a program that lets the user enter the total rainfall for each of 12 months into an array of doubles. The program should calculate and display the total rainfall for the year, the average monthly rainfall, and the months with the highest and lowest amounts.

Input Validation: Do not accept negative numbers for monthly rainfall figures.

Problem 5

In a program, write a function that accepts three arguments: an array, the size of the array, and a number n . Assume that the array contains integers. The function should display all of the numbers in the array that are greater than the number n .

Problem 6

The local Drivers License Office has asked you to write a program that grades the written portion of the drivers license exam. The exam has 20 multiple choice questions. Here are the correct answers:

1. A	6. B	11. A	16. C
2. D	7. A	12. C	17. C
3. B	8. B	13. D	18. A
4. B	9. C	14. B	19. D
5. C	10. D	15. D	20. B

Your program should store the correct answers shown above in an array. It should ask the user to enter the students answers for each of the 20 questions, and the answers should be stored in another array. After the students answers have been entered, the program should display a message indicating whether the student passed or failed the exam. (A student must correctly answer 15 of the 20 questions to pass the exam.) It should then display the total number of correctly answered questions, the total number of incorrectly answered questions, and a list showing the question numbers of the incorrectly answered questions.

Input Validation: Only accept the letters A, B, C, or D as answers.