<Activity No. 4.2>	
<Arrays>	
Course Code: CPE007	**Program:** Computer Engineering
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Name(s): Will Stuart D. Ponce Jr.	**Instructor: Engr. Jimlord Quejado**

6. Output

```cpp
#include<iostream>
using namespace std;

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using namespace std;

int main() {
    int n[10];

    // Initialize array elements to 0
    for (int i = 0; i < 10; i++) {
        n[i] = 0;
    }

    cout << "Element   Value" << endl;

    // Print index and value
    for (int i = 0; i < 10; i++) {
        cout << "   " << i << "       " << n[i] << endl;
    }

    return 0;
}
```

Explanation: You will get the by using the codes in the given first they initialize array element to 0 and they do the code next, they cout it the element and Value and it will be process next is Print the index value and there you go you will get the code.

```
Element   Value
   0       0
   1       0
   2       0
   3       0
   4       0
   5       0
   6       0
   7       0
   8       0
   9       0

--------------------------------
Process exited after 0.02395 seconds with return value 0
Press any key to continue . . .
```

```cpp
#include <iostream>
using namespace std;

#define SIZE 12

int main() {
    int a[SIZE] = {1, 3, 5, 4, 7, 2, 99, 16, 45, 67, 89, 45};
    int total = 0;

    for (int i = 0; i < SIZE; i++) {
        total += a[i];
    }

    cout << "Total of array element values is " << total << endl;
    return 0;
}
```

```
Total of array element values is 383

--------------------------------
Process exited after 0.01026 seconds with return value 0
Press any key to continue . . .
```

Explanation: Here you need to solve the array element value so first define the size of the array and next proceed to the code and next total of the array element value and there you go you will get the given answer of the code.

7. Supplementary Activity

1.OUTPUT

```cpp
#include <iostream>


void printHistogram(int value) {
    for (int i = 0; i < value; ++i) {
        std::cout << "*";
    }
}

int main() {

    int numbers[10] = {19, 3, 15, 7, 11, 9, 13, 5, 17, 1};

    std::cout << "Element\   Value\tHistogram" << std::endl;


    for (int i = 0; i < 10; ++i) {
        std::cout << i << "\t" << numbers[i] << "\t";
        printHistogram(numbers[i]);
        std::cout << std::endl;
    }

    return 0;
}

```

Explanation: Answer in number 1 of the supplementary activity: first you to examine the solving pattern next is you need to find a function to print the histogram Next if you done there make the array of 10 elements as per the problem of description and next loop through the array to print each element details and now you will the answer.

```
Element Value   Histogram
0       19      ********************
1       3       ***
2       15      ***************
3       7       *******
4       11      ***********
5       9       *********
6       13      *************
7       5       *****
8       17      *****************
9       1       *
```

2. Output

```cpp
#include <iostream>

#define RESPONSE_SIZE 40
#define MAX_RESPONSE_VALUE 10

int main() {

   int responses[RESPONSE_SIZE] = {1, 2, 6, 4, 8, 5, 9, 7, 8, 10, 1, 6,
3, 8, 6, 10, 3, 8, 2, 7, 6, 5, 7, 6, 8, 6, 7, 5, 6, 6, 5, 6, 7, 5, 6, 4,
 8, 6, 8, 10};


    int responseCounts[MAX_RESPONSE_VALUE + 1] = {0};


    for (int i = 0; i < RESPONSE_SIZE; i++) {
        int responseValue = responses[i];
        if (responseValue >= 1 && responseValue <= MAX_RESPONSE_VALUE) {
            responseCounts[responseValue]++;
        }
    }

    std::cout << "Response Summary:" << std::endl;
    for (int i = 1; i <= MAX_RESPONSE_VALUE; i++) {

       std::cout << "Response " << i << ": " <<
responseCounts[i] << " students" << std::endl;
    }

    return 0;
}

```

Explanation: Answer in Number 2 of the supplementary activity: First response to size of the pattern next is define the max pattern and make a code of that and next create a frequency array to count the occurrences ay each response and the size Iterate through the original response array and totally the counts. And next Print the summary of the responses there you go you will get the answer of the number 2.

8. Conclusion

My conclusion about this is you will tell how you going to improve a lot of on the arrays and it can help you to the near future if you accomplish the programming next here's what happen It will teach how you going to understand simple tasks of the code first you going to initialize the code you are going to do next process code and second I learn is how to use the void and the looping and it can help you to the next assignment next you going to understand first two questions in supplementary activity and next I learn how the response do and the size of the code and the uses of and it can help a lot on the assignment and summary I learn in this sessions.

9. Assessment Rubric