


Midterm Exam: Skill Test	
Course Code: CPE 201L	Program: BS CpE
Course Title: Data Structures and Algorithm	Date Performed: September 6, 2025
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<b>1.Objectives</b>	
1. To implement an array of integer using python 2. To perform basic operations like display, count all the number inside the element, and count the odd and even integers inside the element.	
<b>2. Discussion</b>	
This Skill test really gave me a good practical experience dealing with array, which is simple but really usefull data structure for managing multiple elements, By placing numbers less than 50 but not less than 20 is also equal to 20-49 and putting them in into the array, I could easily keep them organized and work with as a group. The array lets me allow to count all the numbers and quickly check whether each number was even or odd.	
<b>3. Materials and Equipment</b>	
<b>Python Programming Language</b> Python was used to implement the array data structure and perform the required operations.	
<b>Integrated Development Environment (IDE)</b> Google Colab	
<b>4. Procedure</b>	
Step 1: Create an array containing numbers from 20 to 49 Step 2: Display all elements in the array Step 3: Count the total number of elements in the array Step 4: Count how many even numbers are in the array Step 5: Count how many odd numbers are in the array Step 6: Display the total count, even count, and odd count Step 7: End the procedure	
<b>5. Output</b>	
 Elements in the array: [20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49] Number of elements: 30 Number of odd integers: 15 Number of even integers: 15	
<b>6. Conclusion</b>	
We got to practice handling a bunch of numbers with arrays thanks to this exercise. In an array, that works similarly to a container that keeps things in order, we enter the numbers 20 to 49. The sum of numbers in the container was then counted. We then determined if each number was odd or even and noted how many of it we could find. Dealing with all the integers simultaneously rather than one at a time became easy by the use of arrays.	

