

C++ Array Exercises with Answers

Exercise 1: Array Declaration and Initialization

Declare an array of 5 integers and initialize it with values 10, 20, 30, 40, and 50. Then, print the value of the third element.

```
#include <iostream>

using namespace std;

int main() {

    int arr[5] = {10, 20, 30, 40, 50};

    cout << "The third element is: " << arr[2] << endl; // Output will be 30

    return 0;

}
```

Exercise 2: Sum of Array Elements

Write a program to calculate the sum of all elements in an array of integers. Use the array {5, 10, 15, 20, 25}.

```
#include <iostream>

using namespace std;

int main() {

    int arr[5] = {5, 10, 15, 20, 25};

    int sum = 0;

    for (int i = 0; i < 5; i++) {

        sum += arr[i];

    }

}
```

```
    cout << "The sum of array elements is: " << sum << endl;    // Output will be 75

    return 0;

}
```

Exercise 3: Maximum Element in Array

Write a program to find the maximum element in an array {3, 7, 2, 9, 5}.

```
#include <iostream>

using namespace std;

int main() {

    int arr[5] = {3, 7, 2, 9, 5};

    int maxElement = arr[0];

    for (int i = 1; i < 5; i++) {

        if (arr[i] > maxElement) {

            maxElement = arr[i];

        }

    }

    cout << "The maximum element is: " << maxElement << endl;    // Output will be 9

    return 0;

}
```

Exercise 4: Reverse Array

Write a program to reverse an array {1, 2, 3, 4, 5} and print the elements in reversed order.

```
#include <iostream>

using namespace std;
```

```

int main() {

    int arr[5] = {1, 2, 3, 4, 5};

    cout << "Array in reverse order: ";

    for (int i = 4; i >= 0; i--) {

        cout << arr[i] << " ";

    }

    cout << endl; // Output will be 5 4 3 2 1

    return 0;

}

```

Exercise 5: Counting Even and Odd Numbers

Write a program to count the number of even and odd numbers in the array {12, 17, 19, 24, 15}.

```

#include <iostream>

using namespace std;

int main() {

    int arr[5] = {12, 17, 19, 24, 15};

    int evenCount = 0, oddCount = 0;

    for (int i = 0; i < 5; i++) {

        if (arr[i] % 2 == 0) {

            evenCount++;

        } else {

            oddCount++;

        }

    }

}

```

```
}
```

```
cout << "Number of even numbers: " << evenCount << endl; // Output will be 2
```

```
cout << "Number of odd numbers: " << oddCount << endl; // Output will be 3
```

```
return 0;
```

```
}
```