Rotate Array in C++

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

void rotate(int arr[], int d, int n) {
    int temp[d];
    for (int i = 0; i < d; i++) {
        temp[i] = arr[i];
    }

    for (int i = d; i < n; i++) {
        arr[i - d] = arr[i];
    }

    for (int i = 0; i < d; i++) {
        arr[n - d + i] = temp[i];
    }

    for (int i = 0; i < n; i++) {
        cout << " " << arr[i];
    }
    cout << endl;
}

int main() {
    int arr[] = {1, 3, 6, 2, 5, 4, 3, 2, 4};
    int n = sizeof(arr) / sizeof(arr[0]);
    rotate(arr, 5, n);
    return 0;
}
```

Input:

arr[] = {1, 3, 6, 2, 5, 4, 3, 2, 4}
d = 5
n = 9

🔁 Step-by-step Breakdown:

1. Store first d elements in temp

temp = {1, 3, 6, 2, 5}

i	temp[i]
0	1
1	3
2	6
3	2
4	5

2. Shift remaining n - d elements to the left

arr[0] = arr[5] → 4
arr[1] = arr[6] → 3
arr[2] = arr[7] → 2
arr[3] = arr[8] → 4

i	arr[i] (after shift)
0	4
1	3
2	2
3	4

3. Copy temp back to the end

arr[4] = temp[0] = 1
arr[5] = temp[1] = 3
arr[6] = temp[2] = 6
arr[7] = temp[3] = 2
arr[8] = temp[4] = 5

i	arr[i] (final state)
4	1

i	arr[i] (final state)
5	3
6	6
7	2
8	5

Final Output:

4 3 2 4 1 3 6 2 5

4 3 2 4 1 3 6 2 5