

*Write a C++ program that declares an array **alpha of 50 components** of type double. Initialize the array so that the first **25 components** are equal to the cube of the index variable, and the **last 25 components** are equal to four times the index variable. Output the array so that 10 elements per line are printed.*

Use pointers notation to solve this question.

```

#include <iostream>
#include <cmath>
using namespace std;
int main() {
    double alpha[50],result1[25],result2[25];
    double *cube[25], *four[25];
    int i,j;

    for(i=0;i<25;i++){
        alpha[i] = rand() % 100;
        cube[i] = &alpha[i];
        cout << "array[" << i << "]:" << *cube[i]<<endl;
        result1[i] = pow(*cube[i], 1.0/3.0);
    }
    cout << "\nAnswer of first 25 As cube root:" << endl;
    for (i = 0; i < 25; i++) {
        cout << result1[i]<<" | ";
        if (i == 9 || i == 19) {
            cout << endl;//To show 10 elements in one line ;)
        }
    }

    for (j = 0; j < 25; j++) {
        alpha[j] = rand() % 100;
        four[j] = &alpha[j];
        cout << "\narray[" << i++ << "]:" << *four[j] << endl;
        result2[j] = pow(*four[j], 1.0 / 4.0);
    }
    cout << "\nAnswer of Last 25 As Fourth root:" << endl;
    for (j = 0; j < 25; j++) {
        cout << result2[j] << " | ";
        if (j == 9 || j == 19) {
            cout << endl;//To show 10 elements in one line ;)
        }
    }
}

```