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//Lab exercise 3
```

```
/*#include <iostream> //QUESTION 1
```

```
using namespace std;
```

```
bool isPassing(int score)
```

```
{
```

```
    return score >= 50;
```

```
}
```

```
int main() {
```

```
    int score;
```

```
    cout << "Enter the student's test score: ";
```

```
    cin >> score;
```

```
    if (isPassing(score)) {
```

```
        cout << "The student passed the test." << endl;
```

```
    } else {
```

```
        cout << "The student failed the test." << endl;
```

```
    }
```

```
    return 0;
```

```
}
```

```
#include <iostream> //QUESTION 2
```

```
#include <iomanip>
```

```
using namespace std;
```

```
int main ()
```

```
{
```

```
    const int SIZE = 5;
```

```
    double price[SIZE], total = 0.0, highestprice = 0.0;
```

```

    cout << "Enter the prices of 5 items: " << endl;
    for (int i = 0; i<SIZE; ++i)
    {
        cin >> price[i];
        total += price[i];

        if (price[i] > highestprice)
        {
            highestprice = price[i];
        }

    }

    double average = total / SIZE;

    cout << fixed << setprecision(2);
    cout << "Total price: " << total << endl;
    cout << "Average price: RM " << average << endl;
    cout << "Highest price: RM " << highestprice << endl;

    return 0;
}

```

```

#include <iostream> //QUESTION 3

```

```

#include <iomanip>

```

```

using namespace std;

```

```

int main ()

```

```

{

```

```

    const int STUDENTS = 2;

```

```

    const int SUBJECTS = 3;

```

```

int marks [STUDENTS][SUBJECTS];

int total[STUDENTS] = {0};

cout << "Enter marks for 2 student (3subject each): " << endl;
for (int i = 0; i<STUDENTS; ++i)
{
    cout << "student " << i+1 << endl;
    for (int j= 0; j < SUBJECTS; ++j)
    {
        cin >> marks[i][j] ;
        total[i]+= marks[i][j];
    }
}

cout << "\nmarks table: " << endl;
cout << "Student\tMath\tEnglish\tScience\tTotal" << endl;
for ( int i = 0; i< STUDENTS; ++i)
{
    cout << i + 1 << "\t";
    for (int j = 0; j < SUBJECTS; ++j)
    {
        cout << marks[i][j] << "\t";
    }
    cout << total [i] << endl;
}

return 0;

}*/

#include <iostream>

#include <iomanip>

using namespace std;

double totalSales(double sales[], int size) {

```

```
double total = 0;

for (int i = 0; i < size; i++) {
    total += sales[i];
}

return total;
}
```

```
void findMaxRegion(double sales[], int size, double &maxSales, int &region) {
    maxSales = sales[0];
    region = 1;
    for (int i = 1; i < size; i++) {
        if (sales[i] > maxSales) {
            maxSales = sales[i];
            region = i + 1;
        }
    }
}
```

```
int main() {
```

```
    double sales[2][3];
```

```
    cout << "Enter sales data for Product 1 across 3 regions:" << endl;
```

```
    for (int r = 0; r < 3; r++) {
        cout << "Region " << (r + 1) << ": ";
        cin >> sales[0][r];
    }
```

```
    cout << "Enter sales data for Product 2 across 3 regions:" << endl;
```

```
    for (int r = 0; r < 3; r++) {
        cout << "Region " << (r + 1) << ": ";
```

```

        cin >> sales[1][r];
    }

    double totalSalesP1 = totalSales(sales[0], 3);
    double maxSalesP1;
    int maxRegionP1;
    findMaxRegion(sales[0], 3, maxSalesP1, maxRegionP1);

    cout << fixed << setprecision(2);

    cout << "Product 1: Total sales: RM" << totalSalesP1 << ", Region with highest sales: Region "
    << maxRegionP1 << " (Sales: RM"
        << maxSalesP1 << ")" << endl;

    double totalSalesP2 = totalSales(sales[1], 3);
    double maxSalesP2;
    int maxRegionP2;
    findMaxRegion(sales[1], 3, maxSalesP2, maxRegionP2);

    cout << "Product 2: Total sales: RM" << totalSalesP2 << ", Region with highest sales: Region "
    << maxRegionP2 << " (Sales: RM" << maxSalesP2
        << ")" << endl;

    return 0;
}

```