CHAPTER 12

TWO-DIMENSIONAL ARRAYS

The answers for the Two-Dimensional Arrays section are located at the end of the section.

1. Chris Hoffstra works at a local restaurant. The hours he worked and the tips he earned during a four-week period are shown in WM-Figure 12-1. Write the code to store the hours and tips in a two-dimensional `double` array named `workInfo`.

	Week 1	Week 2	Week 3	Week 4
Hours worked	10	25	22	15
Tips earned	50.25	203.45	175	95.50

WM-Figure 12-1 Work information chart

2. Write the code to calculate and display Chris Hoffstra's total hours worked.
3. Write the code to display the highest tip amount contained in the `workInfo` array.
4. Write the code to calculate and display the total amount Chris Hoffstra earned during the four-week period, including tips. Chris is paid $7 per hour.

ANSWERS FOR THE TWO-DIMENSIONAL ARRAYS SECTION

1.
```
double workInfo[4][2] = {{10.0, 50.25},
                         {25.0, 203.45},
                         {22.0, 175},
                         {15.0, 95.5}};
```

2.
```
double totalHours = 0.0;
for (int row = 0; row < 4; row += 1)
      totalHours += workInfo[row][0];
//end for
cout << "Total hours worked: " << totalHours << endl;
```

3.
```
double highestTip = workInfo[0][1];
for (int row = 1; row < 4; row += 1)
      if (workInfo[row][1] > highestTip)
            highestTip = workInfo[row][1];
      //end if
//end for
cout << "Highest tip: " << hightestTip << endl;
```

4.
```
double totalEarned = 0.0;
for (int row = 0; row < 4; row += 1)
     totalEarned = totalEarned +
          workInfo[row][0] * 7 + workInfo[row][1];
//end for
cout << "Total earned: " << totalEarned << endl;
```