

The screenshot shows a C++ IDE with a file named `B11200016_HW6_1.cpp`. The code defines a `main` function that reads a 4x4 matrix `a` from standard input. It then iterates over the matrix to print its transpose, with rows and columns swapped. The output window shows the resulting 4x4 matrix.

```
1 #include <iostream>
2 using namespace std;
3 int main(){
4     short x,y;
5     cin >> x >> y;
6     short a[x][y];
7     for(int i=0;i<x;i++){
8         for(int j=0;j<y;j++){
9             cin >> a[i][j];
10        }
11    }
12    for(int i=0;i<y;i++){
13        for(int j=x-1;j>=0;j--){
14            cout << a[j][i] << " ";
15        }
16        cout << "\b\n";
17    }
18    return 0;
19 }
```

Output:

```
2 3
5 8 7
6 5 4
6 9 4
5 8 7
4 7
```

圖一 題目一

The screenshot shows the same C++ IDE and code as Figure 1. The input and output values are different, resulting in a different 4x4 matrix being printed.

```
1 #include <iostream>
2 using namespace std;
3 int main(){
4     short x,y;
5     cin >> x >> y;
6     short a[x][y];
7     for(int i=0;i<x;i++){
8         for(int j=0;j<y;j++){
9             cin >> a[i][j];
10        }
11    }
12    for(int i=0;i<y;i++){
13        for(int j=x-1;j>=0;j--){
14            cout << a[j][i] << " ";
15        }
16        cout << "\b\n";
17    }
18    return 0;
19 }
```

Output:

```
3 2
1 2
3 6
8 4
8 3 1
4 6 2
```

圖二 題目一

The screenshot shows a C++ IDE with two tabs: `B11200016_HW6_3.cpp` and `B11200016_HW6_1.cpp M`. The active tab is `B11200016_HW6_1.cpp`, which contains the following code:

```
1 #include <iostream>
2 using namespace std;
3 int main(){
4     short x,y;
5     cin >> x >> y;
6     short a[x][y];
7     for(int i=0;i<x;i++){
8         for(int j=0;j<y;j++){
9             cin >> a[i][j];
10        }
11    }
12    for(int i=0;i<y;i++){
13        for(int j=x-1;j>=0;j--){
14            cout << a[j][i] << " ";
15        }
16        cout << "\b\n";
17    }
18    return 0;
19 }
```

The output window shows the result of running the program:

```
D:\code\github\CompetitionCodingNote\build\B11200016_HW6_1.exe
3 3
1 2 3
4 5 6
7 8 9
7 4 1
8 5 2
9 6 3
```

圖 三 題目一

The screenshot shows a C++ IDE with three tabs: `B11200016_HW6_3.cpp`, `B11200016_HW6_1.cpp M`, and `B11200016_HW6_2.cpp M`. The active tab is `B11200016_HW6_2.cpp`, which contains the following code:

```
1 #include <iostream>
2 using namespace std;
3 int main(){
4     short x,y;
5     cin >> x >> y;
6     pair<short,short> av[x][y];
7     fill(&av[0][0],&av[0][0] + x*y,make_pair(0,0));
8     for (int i=0;i<x;i++){
9         for (int j=0;j<y;j++){
10             short tmp;
11             cin >> tmp;
12             for(int k=0;k<x;k++){
13                 av[k][j].first+=tmp;
14             }
15             for(int k=0;k<y;k++){
16                 av[i][k].second+=tmp;
17             }
18         }
19     }
20     for (int i=0;i<x;i++){
21         for (int j=0;j<y;j++){
22             cout << av[i][j].first/x+av[i][j].second/y << " ";
23         }
24         cout << "\b\n";
25     }
```

The output window shows the result of running the program:

```
D:\code\github\CompetitionCodingNote\build\B11200016_HW6_2.exe
3 3
1 5 2
3 6 8
4 5 6
4 7 7
7 10 10
7 10 10
```

圖 四 題目二

```

B11200016_HW6_3.cpp  B11200016_HW6_1.cpp M  B11200016_HW6_2.cpp M X
CompetitionCodingNote > class > HW6 > B11200016_HW6_2.cpp > main()
1  #include <iostream>
2  using namespace std;
3  int main(){
4      short x,y;
5      cin >> x >> y;
6      pair<short,short> av[x][y];
7      fill(&av[0][0],&av[0][0] + x*y,make_pair(0,0));
8      for (int i=0;i<x;i++){
9          for (int j=0;j<y;j++){
10             short tmp;
11             cin >> tmp;
12             for(int k=0;k<x;k++){
13                 av[k][j].first+=tmp;
14             }
15             for(int k=0;k<y;k++){
16                 av[i][k].second+=tmp;
17             }
18         }
19     }
20     for (int i=0;i<x;i++){
21         for (int j=0;j<y;j++){
22             cout << av[i][j].first/x+av[i][j].second/y << " ";
23         }
24         cout << "\b\n";

```

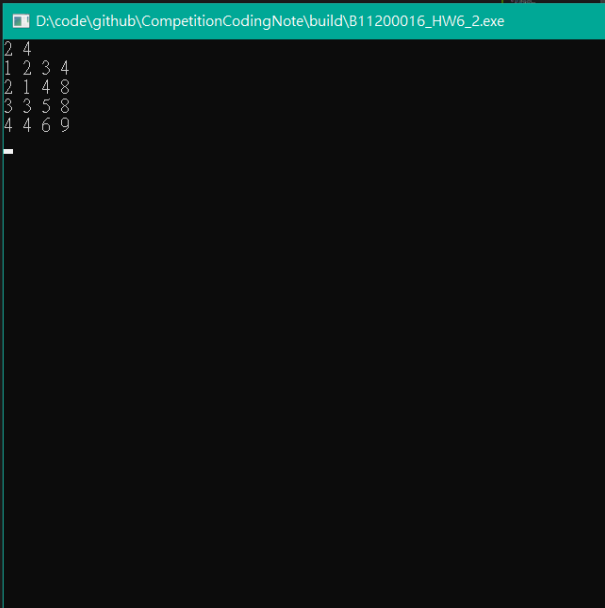


圖 五 題目二

```

B11200016_HW6_3.cpp  B11200016_HW6_1.cpp M  B11200016_HW6_2.cpp M X
CompetitionCodingNote > class > HW6 > B11200016_HW6_2.cpp > main()
1  #include <iostream>
2  using namespace std;
3  int main(){
4      short x,y;
5      cin >> x >> y;
6      pair<short,short> av[x][y];
7      fill(&av[0][0],&av[0][0] + x*y,make_pair(0,0));
8      for (int i=0;i<x;i++){
9          for (int j=0;j<y;j++){
10             short tmp;
11             cin >> tmp;
12             for(int k=0;k<x;k++){
13                 av[k][j].first+=tmp;
14             }
15             for(int k=0;k<y;k++){
16                 av[i][k].second+=tmp;
17             }
18         }
19     }
20     for (int i=0;i<x;i++){
21         for (int j=0;j<y;j++){
22             cout << av[i][j].first/x+av[i][j].second/y << " ";
23         }
24         cout << "\b\n";

```

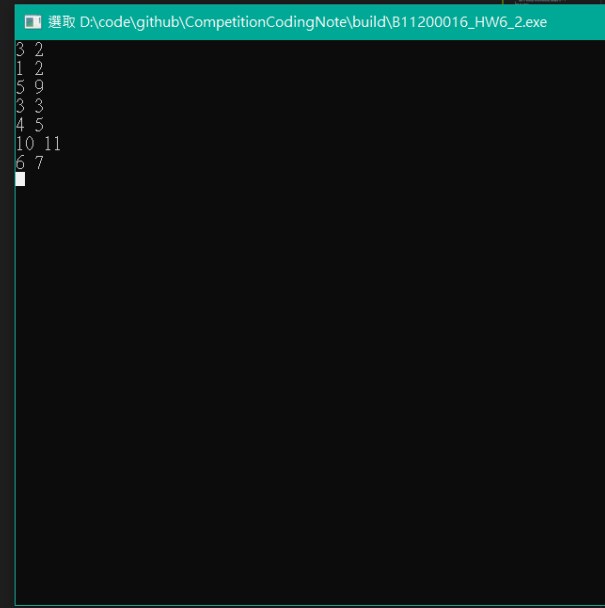
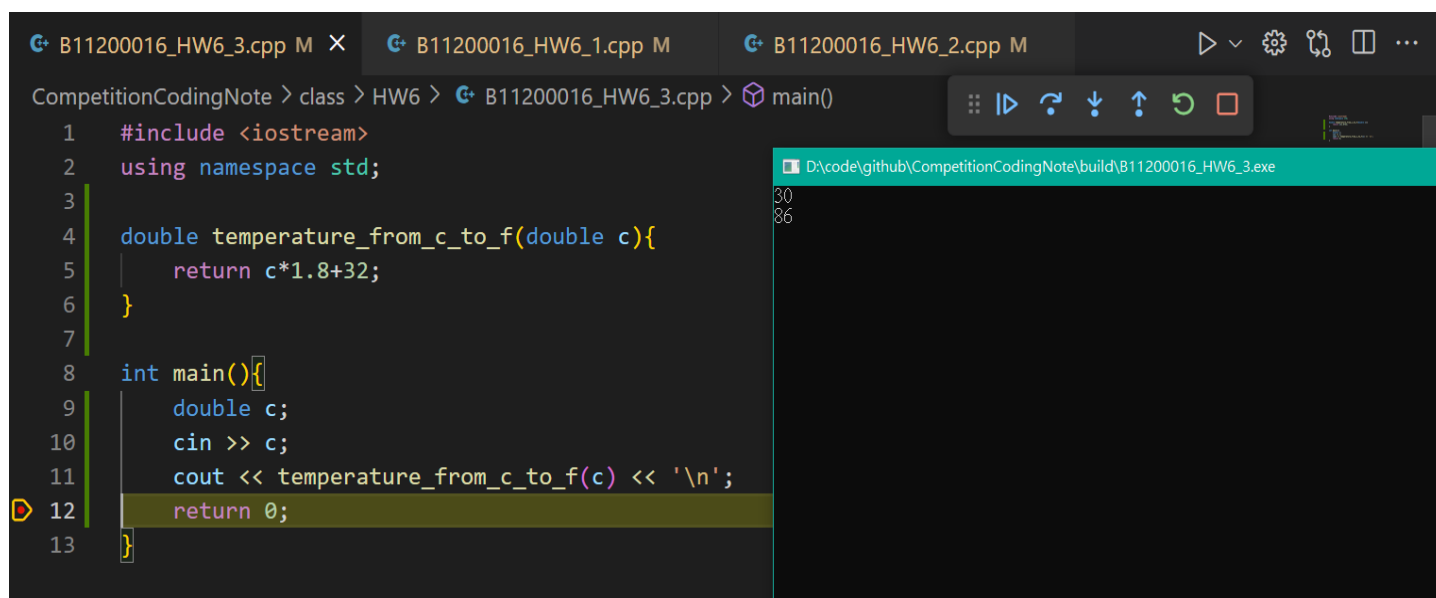


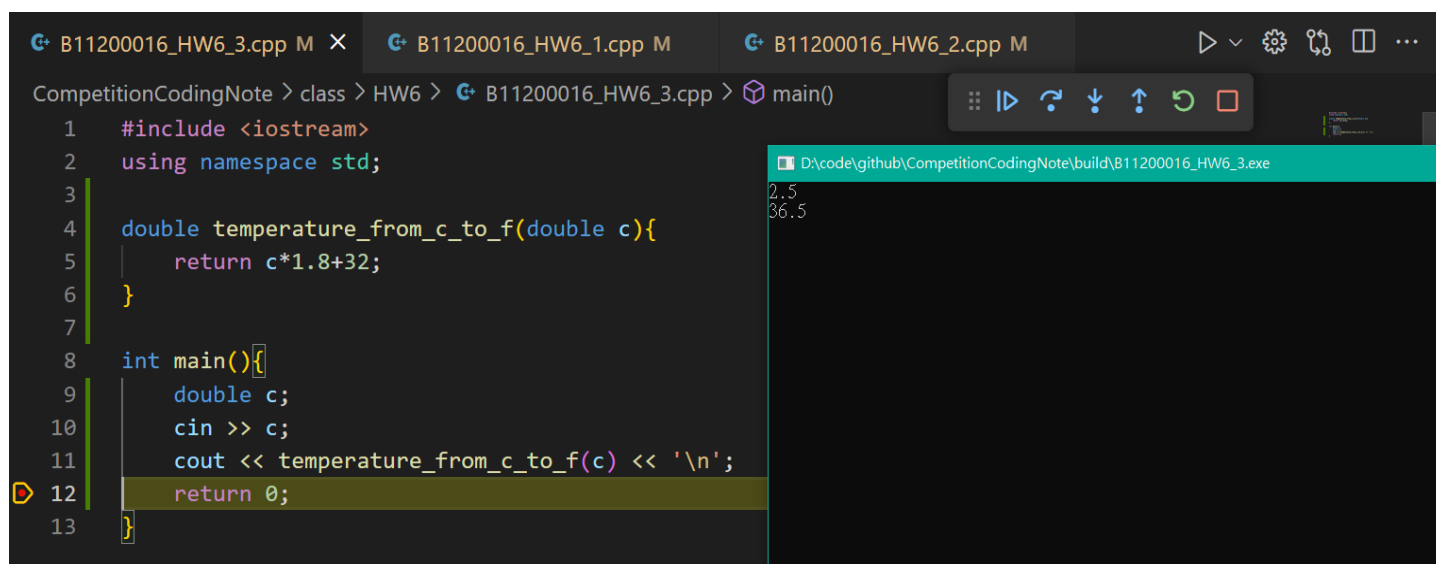
圖 六 題目二



```
1 #include <iostream>
2 using namespace std;
3
4 double temperature_from_c_to_f(double c){
5     return c*1.8+32;
6 }
7
8 int main(){
9     double c;
10    cin >> c;
11    cout << temperature_from_c_to_f(c) << '\n';
12    return 0;
13 }
```

Output: 30  
86

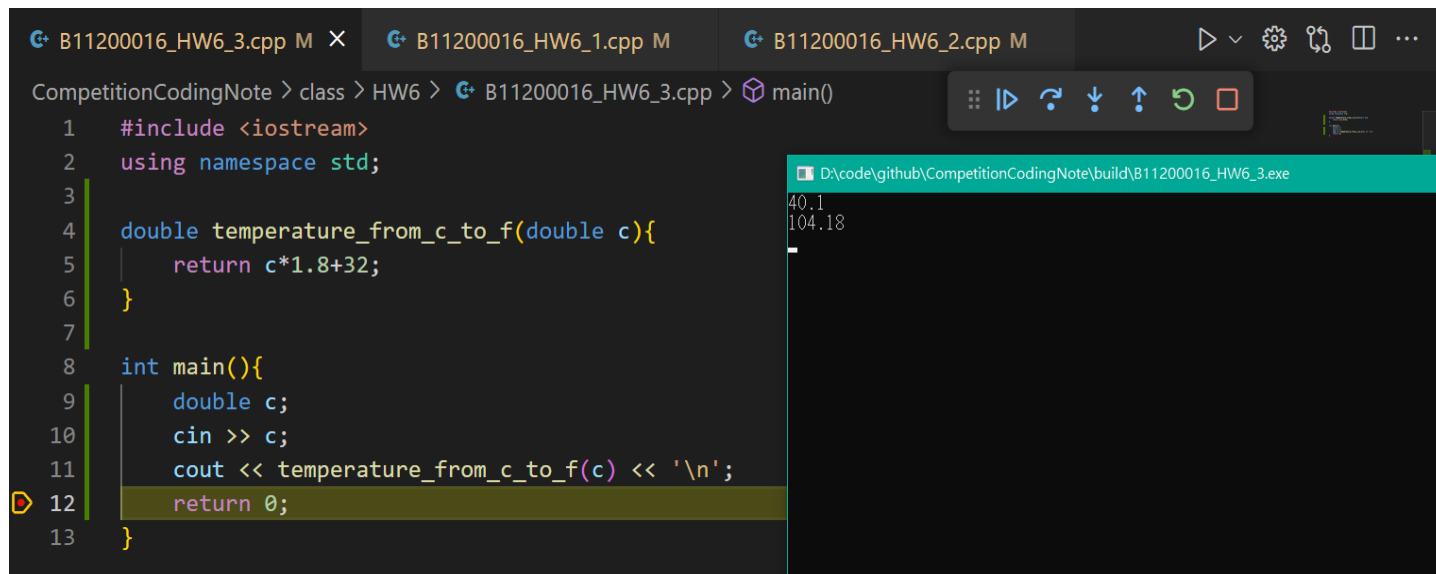
圖 七 題目三



```
1 #include <iostream>
2 using namespace std;
3
4 double temperature_from_c_to_f(double c){
5     return c*1.8+32;
6 }
7
8 int main(){
9     double c;
10    cin >> c;
11    cout << temperature_from_c_to_f(c) << '\n';
12    return 0;
13 }
```

Output: 2.5  
36.5

圖 八 題目三



```
1 #include <iostream>
2 using namespace std;
3
4 double temperature_from_c_to_f(double c){
5     return c*1.8+32;
6 }
7
8 int main(){
9     double c;
10    cin >> c;
11    cout << temperature_from_c_to_f(c) << '\n';
12    return 0;
13 }
```

Output: 40.1  
104.18

圖 九 題目三