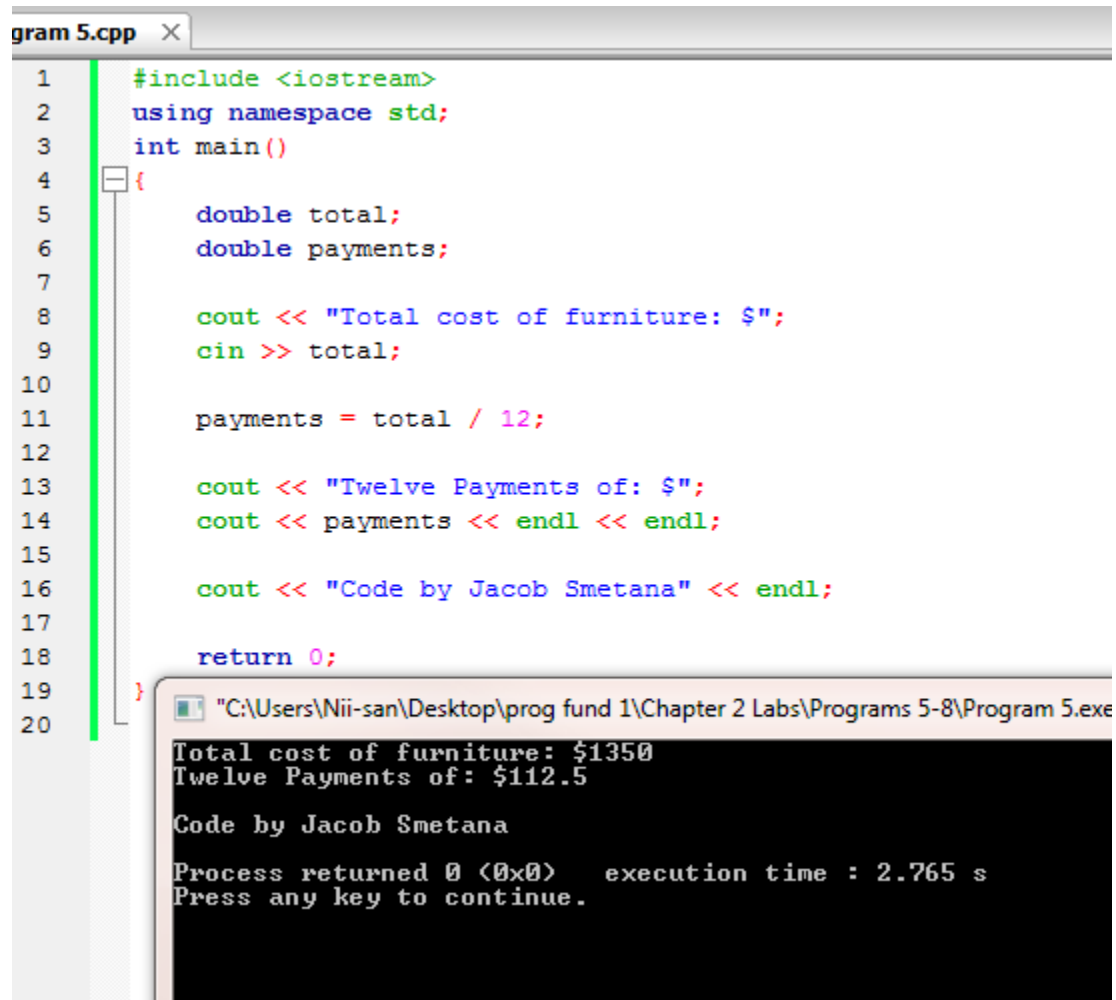


Programs 5-8

Program 5.



The image shows a code editor window titled 'gram 5.cpp' with a line number margin on the left. The code is a C++ program that calculates the total cost of furniture and the amount of each of twelve payments. It uses `iostream` and `std` namespace. The `main` function declares `total` and `payments` as `double`. It prompts the user to enter the total cost, which is stored in `total`. Then, it calculates `payments` as `total / 12`. Finally, it outputs the total cost and the amount of each payment, followed by a signature 'Code by Jacob Smetana'. The program returns 0.

```
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      double total;
6      double payments;
7
8      cout << "Total cost of furniture: $";
9      cin >> total;
10
11     payments = total / 12;
12
13     cout << "Twelve Payments of: $";
14     cout << payments << endl << endl;
15
16     cout << "Code by Jacob Smetana" << endl;
17
18     return 0;
19 }
20
```

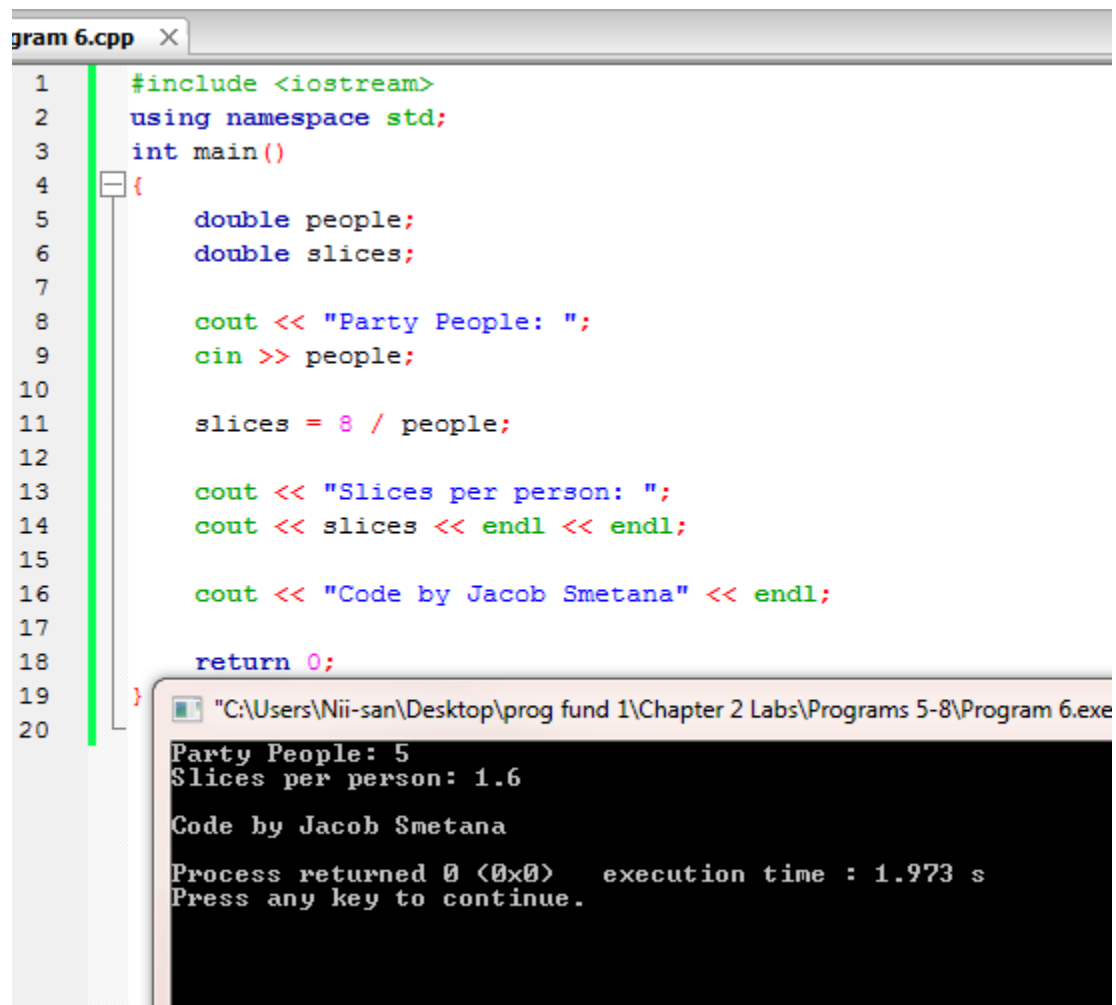
Below the code editor, a console window titled '"C:\Users\Nii-san\Desktop\prog fund 1\Chapter 2 Labs\Programs 5-8\Program 5.exe"' displays the program's output:

```
Total cost of furniture: $1350
Twelve Payments of: $112.5

Code by Jacob Smetana

Process returned 0 (0x0)   execution time : 2.765 s
Press any key to continue.
```

Program 6.



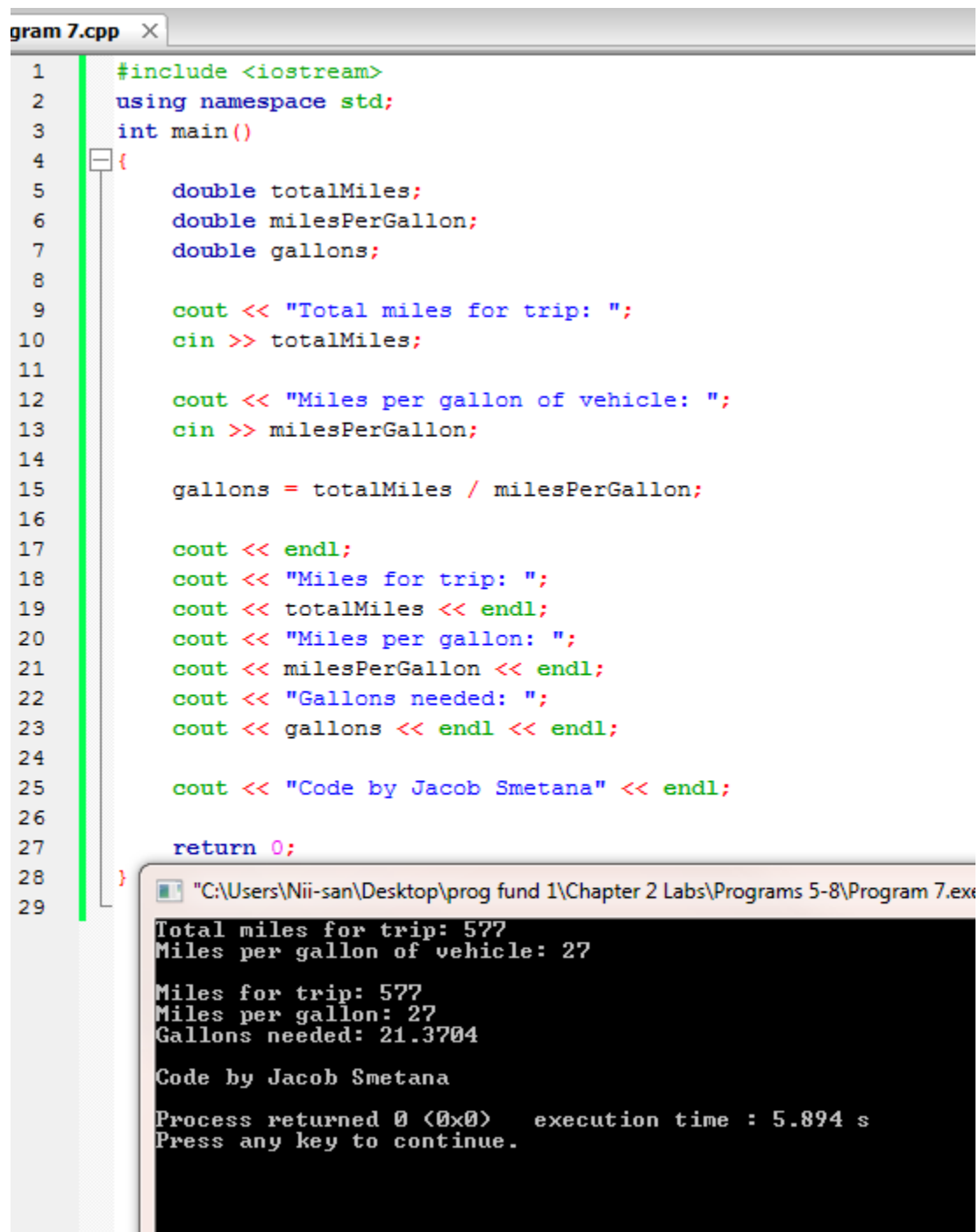
The image shows a code editor window titled "gram 6.cpp" with a line number margin on the left. The code is a C++ program that calculates the number of slices per person for a party. It includes the `<iostream>` header, uses the `std` namespace, and defines a `main` function. Inside `main`, it declares `double` variables `people` and `slices`. It prompts the user to enter the number of people, calculates the slices per person (8 divided by the number of people), and prints the results. The program ends with `return 0;`. Below the code editor, a console window shows the execution output for the input 5 people, resulting in 1.6 slices per person. The console also displays the program's path, the return value, execution time, and a prompt to press any key to continue.

```
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      double people;
6      double slices;
7
8      cout << "Party People: ";
9      cin >> people;
10
11     slices = 8 / people;
12
13     cout << "Slices per person: ";
14     cout << slices << endl << endl;
15
16     cout << "Code by Jacob Smetana" << endl;
17
18     return 0;
19 }
20
```

"C:\Users\Nii-san\Desktop\prog fund 1\Chapter 2 Labs\Programs 5-8\Program 6.exe"

Party People: 5
Slices per person: 1.6
Code by Jacob Smetana
Process returned 0 (0x0) execution time : 1.973 s
Press any key to continue.

Program 7.



The image shows a code editor window titled "gram 7.cpp" with a C++ program. The program prompts the user for total miles and miles per gallon, calculates the gallons needed, and displays the results. Below the code editor is a terminal window showing the program's execution with sample input and output.

```
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      double totalMiles;
6      double milesPerGallon;
7      double gallons;
8
9      cout << "Total miles for trip: ";
10     cin >> totalMiles;
11
12     cout << "Miles per gallon of vehicle: ";
13     cin >> milesPerGallon;
14
15     gallons = totalMiles / milesPerGallon;
16
17     cout << endl;
18     cout << "Miles for trip: ";
19     cout << totalMiles << endl;
20     cout << "Miles per gallon: ";
21     cout << milesPerGallon << endl;
22     cout << "Gallons needed: ";
23     cout << gallons << endl << endl;
24
25     cout << "Code by Jacob Smetana" << endl;
26
27     return 0;
28 }
29
```

Terminal Output:

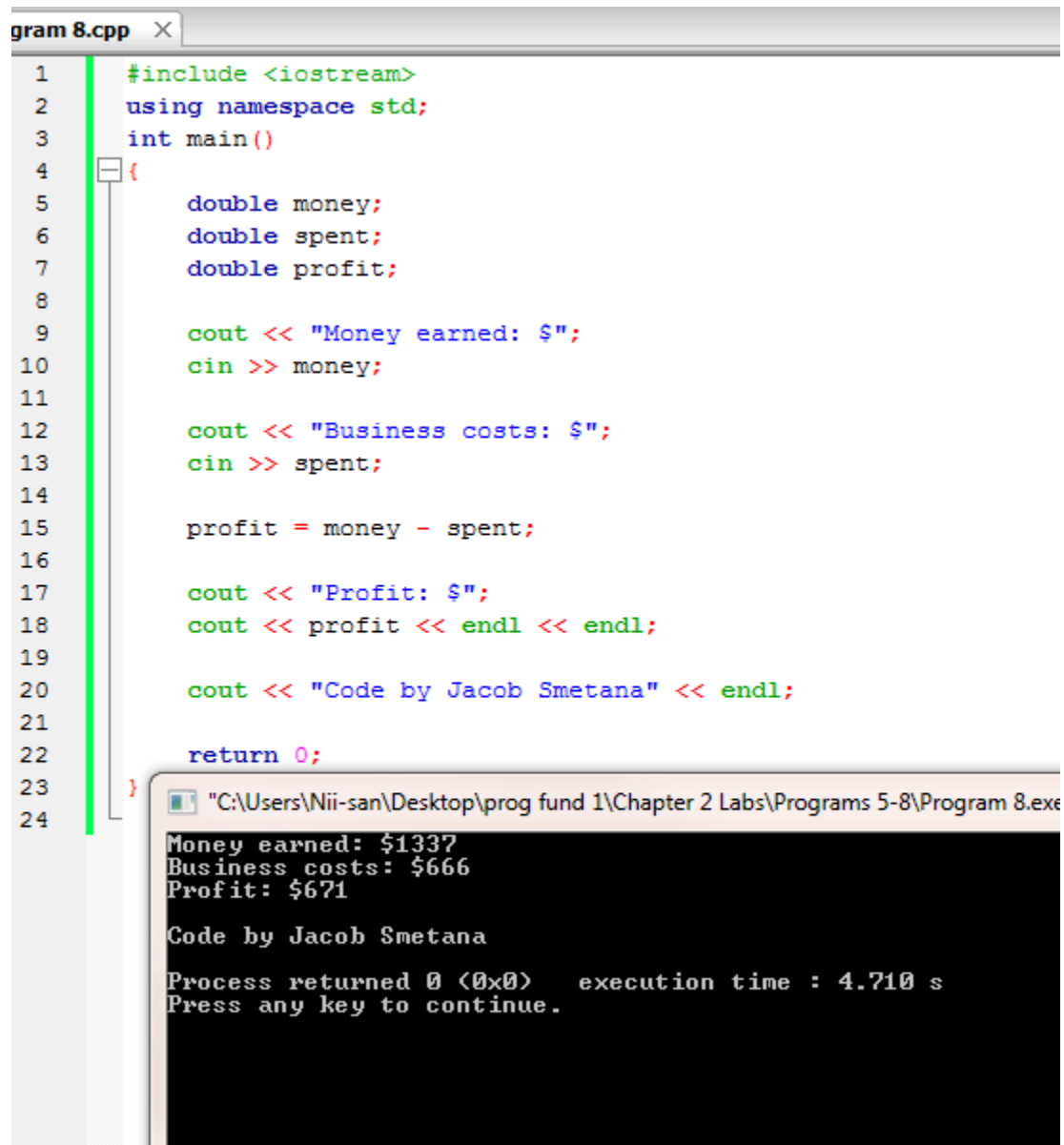
```
"C:\Users\Nii-san\Desktop\prog fund 1\Chapter 2 Labs\Programs 5-8\Program 7.exe"
Total miles for trip: 577
Miles per gallon of vehicle: 27

Miles for trip: 577
Miles per gallon: 27
Gallons needed: 21.3704

Code by Jacob Smetana

Process returned 0 (0x0)   execution time : 5.894 s
Press any key to continue.
```

Program 8.



The image shows a code editor window titled 'gram 8.cpp' with a line number margin on the left. The code is a C++ program that calculates profit based on money earned and business costs. It includes the `<iostream>` header, uses the `std` namespace, and defines a `main` function. Inside `main`, it declares three `double` variables: `money`, `spent`, and `profit`. It prompts the user for 'Money earned' and 'Business costs' using `cout` and `cin`. It then calculates `profit = money - spent` and prints the results with `endl` for line breaks. Finally, it prints a signature 'Code by Jacob Smetana' and returns 0. Below the code editor, a separate window shows the program's execution output, displaying the input values, the calculated profit, and the signature. At the bottom of the output window, it shows 'Process returned 0 (0x0) execution time : 4.710 s' and 'Press any key to continue.'

```
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      double money;
6      double spent;
7      double profit;
8
9      cout << "Money earned: $";
10     cin >> money;
11
12     cout << "Business costs: $";
13     cin >> spent;
14
15     profit = money - spent;
16
17     cout << "Profit: $";
18     cout << profit << endl << endl;
19
20     cout << "Code by Jacob Smetana" << endl;
21
22     return 0;
23 }
24
```

"C:\Users\Nii-san\Desktop\prog fund 1\Chapter 2 Labs\Programs 5-8\Program 8.exe"

Money earned: \$1337
Business costs: \$666
Profit: \$671

Code by Jacob Smetana

Process returned 0 (0x0) execution time : 4.710 s
Press any key to continue.