

```
main.cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int x;
6      cout << "Enter an integer: ";
7      cin >> x;
8
9      int result1 = x * x * x + 3 * x * x + 5 * x + 7;
10     double result2 = x * x * x + 3 * x * x + 5 * x + 7.2;
11
12     cout << "x^3 + 3x^2 + 5x + 7 = " << result1 << endl;
13     cout << "x^3 + 3x^2 + 5x + 7.2 = " << result2 << endl;
14
15     return 0;
16 }
```

input

Enter an integer: 3
x^3 + 3x^2 + 5x + 7 = 76
x^3 + 3x^2 + 5x + 7.2 = 76.2

...Program finished with exit code 0
Press ENTER to exit console.

Figure 1: Q2

```
main.cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int x;
6      cout << "Enter an integer: ";
7      cin >> x;
8
9      cout << "x = " << x << endl;
10     cout << "2x = " << 2 * x << endl;
11     cout << "x^2 = " << x * x << endl;
12
13     return 0;
14 }
```

input

```
Enter an integer: 3
x = 3
2x = 6
x^2 = 9

...Program finished with exit code 0
Press ENTER to exit console.
```

Figure 2: Q1

```
main.cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int sum = 0;
6      for (int i = 1; i <= 100; i++) {
7          sum += i;
8      }
9
10     cout << "Sum from 1 to 100 using for loop is: " << sum << endl;
11
12     return 0;
13 }
```

Input

Sum from 1 to 100 using for loop is: 5050

...Program finished with exit code 0
Press ENTER to exit console.

Figure 3: Q3

```
main.cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int rows = 5;
6
7      for (int i = 1; i <= rows; i++) {
8          for (int j = 1; j <= i; j++) {
9              cout << "*";
10             }
11             cout << endl;
12         }
13
14         return 0;
15     }
```

input

```
*
**
***
****
*****

...Program finished with exit code 0
Press ENTER to exit console.
```

Figure 4: Q5

The image shows a code editor window with a file named 'main.cpp'. The code is as follows:

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int sum = 0;
6     int i = 1;
7
8     while (i <= 100) {
9         sum += i;
10        i++;
11    }
12
13    cout << "Sum from 1 to 100 using while loop is: " << sum << endl;
14
15    return 0;
16 }
```

Below the code editor is a console window. The output of the program is displayed as follows:

```
Sum from 1 to 100 using while loop is: 5050

...Program finished with exit code 0
Press ENTER to exit console.
```

Figure 5: Q4