main.cpp

```cpp
#include <iostream>
using namespace std;

int main() {
    int x;
    cout << "Enter an integer: ";
    cin >> x;

    int result1 = x * x * x + 3 * x * x + 5 * x + 7;
    double result2 = x * x * x + 3 * x * x + 5 * x + 7.2;

    cout << "x^3 + 3x^2 + 5x + 7 = " << result1 << endl;
    cout << "x^3 + 3x^2 + 5x + 7.2 = " << result2 << endl;

    return 0;
}
```

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

```cpp
#include <iostream>
using namespace std;

int main() {
    int x;
    cout << "Enter an integer: ";
    cin >> x;

    cout << "x = " << x << endl;
    cout << "2x = " << 2 * x << endl;
    cout << "x^2 = " << x * x << endl;

    return 0;
}
```

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

```cpp
#include <iostream>
using namespace std;

int main() {
    int sum = 0;
    for (int i = 1; i <= 100; i++) {
        sum += i;
    }

    cout << "Sum from 1 to 100 using for loop is: " << sum << endl;

    return 0;
}
```

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

```cpp
#include <iostream>
using namespace std;

int main() {
    int rows = 5;

    for (int i = 1; i <= rows; i++) {
        for (int j = 1; j <= i; j++) {
            cout << "*";
        }
        cout << endl;
    }

    return 0;
}
```

input

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


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

Figure 4: Q5

main.cpp

```cpp
#include <iostream>
using namespace std;

int main(){
int sum = 0;
int i = 1;

while (i <= 100) {
    sum += i;
    i++;
}

cout << "Sum from 1 to 100 using while loop is: " << sum << endl;

return 0;
}
```

input

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


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

Figure 5: Q4