1. (a) Show the output of the following code fragment if $x$ is of type `int`:

```cpp
x = 10;  // Show the Output:
while (x > 0)
{
    cout << x << endl;
    x = x - 3;
}
cout << "Done!" << endl;
```

(b) Show the output of the following code fragment if $x$ is of type `int`:

```cpp
x = 10;  // Show the Output:
while (x < 0)
{
    cout << x << endl;
    x = x - 3;
}
cout << "Done!" << endl;
```

2. Show the output of the following code fragment:

```cpp
{  // Show the Output:
    int x = 5;
    cout << x << endl;
    {
        cout << x << endl;
        int x = 10;
        x++;
        cout << x << endl;
    }
    cout << x << endl;
}
3. Show the output of the following code fragment:

```cpp
for(int count = 1; count < 5; count++)
    cout << (2 * count) << " "
```

Show the Output:

4. Determine the value of `var` in the following expressions:
   (a) `double var = 11 / 2;`  Value:
   (b) `int var = 2 / 5;`  Value:
   (c) `double var = 11.0 / 3;`  Value:
   (d) `int var = 2.0 / 6.0;`  Value:
   (e) `int var = 6.0 / 2.0;`  Value:

5. Determine the value of the following expressions:
   (a) `pow(3,2)`  Value:
   (b) `fabs(-4.3)`  Value:
   (c) `sqrt(pow(2,3))`  Value:
   (d) `10 / abs(-3)`  Value:
   (e) `floor(7.56)`  Value:

6. Write a function declaration and a function definition for a function that takes three arguments, all of type `int`, and that returns the sum of its three arguments.
7. Write a function declaration and a function definition for a function that takes one argument of type `int` and one argument of type `double`, and that returns a value of type `double` that is the average of the two arguments.

8. We want to write a program that returns the maximum value among a set of values entered by the user. Fill in the missing part of the following program to solve this problem.

```cpp
#include <iostream>
using namespace std;
int main() {
    int i, n, max, value;
    cout << "Enter the number of values (should be greater than 0): ";
    cin >> n;
    cout << "Enter a value: ";
    cin >> value;
    max = value;
    // write the missing part below
    cout << "Maximum value is " << max << endl;
    return 0;
}
```
9. We want to write a program that adds all the odd numbers between 1 and a user given value that is greater than 1. For example, if the user enters 3, then the program computes the sum 1+3 and outputs 4, if the user enters 6, then the program computes the sum 1+3+5 and outputs 9, etc. Fill in the missing part of the following program to solve this problem.

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

int main() {
    int i, n, sum;
    cout << "Enter the input value (must be greater than 1): ";
    cin >> n;
    /* write the missing part below */
    cout << "The sum is: " << sum << endl;
    return 0;
}
```

10. Write a function definition for a function named `in_order` that takes three arguments of type `int`. The function returns `True` if the arguments are in ascending order; otherwise, it returns `False`.