

b) quotient = 0, x = 6;

4.8 Identify and correct the errors in each of the following:

a) `while ( c <= 5 )`
 {
 product *= c;
 ++c;
b) `if ( gender == 1 )`
 Console.WriteLine("Woman");
`else;`
 Console.WriteLine("Man");

a) Error: Missing the closing right brace of the while body.
Correction: Add closing right brace after the statement ++c;.

b) Error: Semicolon after else results in a logic error. The second output statement will always be executed.

Correction: Remove the semicolon after else.

4.9 What is wrong with the following while repetition structure?

`while ( z >= 0 )`
 sum += z;

The value of the variable z is never changed in the while structure. Therefore, if the loop continuation

condition (z >= 0) is true, an infinite loop is created. To prevent the infinite loop, z must be decremented so that it eventually becomes less than 0.