# CITP 155 – Programming I

## Chapter 10 Worksheet

## Graded Activity (15 points)

After reading Chapter 10, pages 405-442 in **Microsoft Visual Studio 2015 Unleashed**, respond to the following. Leave the questions in a black font. Enter your answers in a blue font.

1. What are the two states of the debug menu?

At rest (inactive), and in debug mode (active).

1. During an active debug session, the Output window is a running log of messages emitted by what three things?

The compiler, debugger, and debugged code.

1. What are the four sets of available debug options and what does each set control?

General- Controls the enabling and disabling of breakpoint filters,, using just-my-code debugging, enabling the new Diagnostic Tools, creating breakpoint filters, handling warnings, and many other options.

Just-In-Time- Enables user to indicate the type of code for which they want to enable or disable VS debugging.

Output Window- Provides management features for the Output window, such as which messages are shown

Symbols- Enables user to choose which debug symbols are loaded for their debug session.

1. What are two ways to start the debugger?

Selecting the Start Debugging option from the Debug menu or the green debug arrow on the Standard toolbar.

1. During an active debug session when the IDE is stopped on a line of code waiting for instructions on how to move forward, what three options do you have for moving through code?

Step into a line or function, step over a given function, or step out of a function.

1. When using the debugger, what does the Break All command do?

Stops the application on the next executing line and enables you to interrogate the debugger for information.

1. What are the two most obvious windows for watching variables while debugging and what does each one show?

The QuickWatch window and the DataTips window.

1. What are two ways from the Debug menu to end a debug session?

The Terminate All command kills all processes that the debugger is attached to and ends the debug session. There is also the Detach All option, which simply detaches the debugger from all running processes without terminating them.

1. How does the Breakpoints Window help when using the debugger?

It provides a convenient way to organize and manage the conditions on which you intend to break the debugger

1. Critical Thinking: How could the debugger be beneficial for you in your programming?

The debugger is a very useful tool to help understand what issues you might be having with your code. It can help save you a lot of time from searching through all of your code.

Extra Credit: What are two ways to clear (or delete) breakpoints?

On Debug menu, select Delete All Breakpoints. In the Breakpoints window, select the breakpoint, and then press Delete.