**IT 1050 – Programming Logic**  
Take Home Test 1

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*Create a project called IT1050-Midterm. Put all of your code into a single Program.cs class’ Main method. Once completed, push to your git repository and share the URL to your repository in*

1. *Create an infinite while loop. Use a Boolean variable called keepLooping that set to true in the loop’s termination condition. Hint: Use CTRL+C or Debug -> Terminate All to end the program.*
2. *Write a while loop to prints 2 through 128 in brackets, each on a new line. You should initialize your loop control variable to 2. Output the value of the loop control variable each time through the loop.*

*[2]*

*[4]*

*[8]*

*[16]*

*[32]*

*[64]*

*[128]*

1. *Write a for loop that prints 49 through 1 separated by a comma. Note, you will need to use a condition inside of the loops so it does not print the comma the last time through (no newlines – although there should be a newline after 1. You need to be a little tricky with the newlines).*

*49, 48, 47, …, 3, 2, 1*

1. *Write a while loop that prints all odd numbers 1 through 21, each separated by three spaces (no newlines except after the last number).*

*1 3 5 7 9 11 13 15 17 19 21*

1. *Implement the following code using a while loop. In a comment in your code, explain the difference in output between the do-while and while.*

*int n = 8;*

*int i = 10; // initialize*

*do {*

*Console.Write("\*");*

*i++; // update!*

*} while (i < n); // test condition*

1. *Use and and or (&& and ||) to write an if statement that outputs “Let’s go outside!” when both Boolean values are false.*

*boolean icyRain;  
boolean tornadoWarning;*

1. *Extra Credit: Use nested loops to print the following to the console:*

*123454321*

*1234321*

*12321*

*121*

*1*

