**For Loops – Day 3 \*\* Save all your programs \*\***

1. Write a program that does the following:

a) Ask the user for an integer between 1 and 50. Output all the factors of that integer.  
b) Modify the program so that if the number is prime, that is, the only factors of the number is 1 and itself, that a message is outputted indicating that the number is prime.

1. Fibonacci numbers are a sequence of numbers where the next number in the sequence is the sum of the previous two numbers.  The first number is 1 and the second number is 1.  Write a program that outputs the first N numbers in the sequence, starting with 1.  The user should be asked how many numbers of the sequence to output. For Example:  The first 7 numbers are 1 1 2 3 5 8 13