**Problems for February 5th - More While Loops**

**Problem A: Reverse**

Write a program that takes in a user input of a number, and uses a while loop to print out the reverse order of that given number.

Some examples:

Input: Enter a number: 123

Output: The reverse of the number: 321

Input: Enter a number: 1

Output: The reverse of the number: 1

Input: Enter a number: -123

Output: Make number a positive integer

**Problem B: Prime Number**

Write a program that takes in a user input of a number, and uses while loops to print out the prime numbers that go into the number the user imputed

Some examples:

Input: Enter a number: 123

Output: Prime numbers of 123: 3 41

Input: Enter a number: 3

Output: Prime numbers of 3: 3 is a prime number

**Solutions:**

**Problem A: Reverse**

import os

number =input("Enter number: ")

if number.isnumeric() != True:

print("Enter a positive integer")

os.\_exit(0)

num = int(number)

reverse=0

while num > 0:

last\_digit = num%10

reverse = (reverse \* 10)+ last\_digit

num = num//10

print("The reverse of the number: ", reverse)

**Problem B: Prime Numbers**

Import os

number = input("Enter a number: ")

if number.isnumeric() != True:

print("Enter a positive integer")

os.\_exit(0)

num = int(number)

print("Prime numbers of " + number + ":", end= " ")

i = 2

while i <= num:

j = 2

count = 0

while j <= i:

if i%j == 0:

count +=1

j += 1

if count <= 1 and num%i == 0:

if i == num:

print(number, " is a prime number")

break

print(i, end=" ")

i +=1