**Problems for January 29th - if/else statements/ Nested ifs/Operators**

**Problem A: Grade (similar to problem from video 12)**

In this problem, the goal is to write a program that accepts several inputs and determine what letter grade a person would get in the class based on what percent they received. It takes in 1 input:

* Percent Grade

A person gets a Perfect Grade if they received a 100 in the course, if a person received a Zero then they dropped the course.

Some examples:

What percent grade did you receive in CSC 110: **73**

You got a **C** in the course.

What percent grade did you receive in CSC 110: **23**

You got a **F** in the course.

What percent grade did you receive in CSC 110: **100**

You received a **PERFECT GRADE** in the course.

**Problem B: Numbers part 1**

In this problem, the goal is to write a program that determines whether a number is divisible by 2 or by 3. It takes in 1 input

* An Integer

Some examples:

Enter a number: **8**

Divisible by 2 or 3

Enter a number: **12**

Divisible by 2 and 3

Enter a number: **5**

Not divisible by 2 and 3

**Problem C: Numbers part 2**

In this part, we are going to modify our code from problem B to distinguish whether it is specifically divisible by 2 or specifically divisible by 3

Some examples:

Enter a number: **8**

Divisible by 2 but not divisible by 3

Enter a number: **12**

Divisible by 2 and 3

Enter a number: **5**

Not divisible by 2 and Not divisible by 3

**Solutions:**

**Problem A:**

grade = int(input('What percent grade did you receive in CSC 110: '))

if grade >=90:

if grade == 100:

print(“You received a **PERFECT GRADE** in the course”)

else:

print(“You received an **A** in the course”)

if grade >= 80 and grade <=89:

print(“You received an **B** in the course”)

if grade >= 70 and grade <= 79:

print(“You received an **C** in the course”)

if grade >= 60 and grade <= 69:

print(“You received an **D** in the course”)

else:

if grade == 0:

print(“You dropped the course”)

else:

print(“You received an **F** in the course”)

**Problem B:**

num = int(input(“Enter a number: “))

if num % 3 == 0 and num % 2 == 0:

print(“Divisible by 2 and 3”)

if num % 3 == 0 or num %2 == 0:

print(“Divisible by 2 or 3”)

else:

print(“not Divisible by 2 and 3”)

**Problem C:**

num = int(input(“Enter a number: “))

if num%3==0:

if num%2 ==0:

print(“Divisible by 2 and 3”)

else:

print(“Divisible by 3 but not divisible by 2”)

else:

if num%2 == 0:

print(“Divisible by 2 but not divisible by 3”)

else:

print(“Not divisible by 2 and Not divisible by 3”)