**ITEC 109 Lab 2**

**Task 1: Weather Conversion: Converting from Celsius to Fahrenheit and vice versa.**

First I would ask the user to determine which conversion they are making.

Starttemperature = raw\_input(“Please enter the temperature type you are starting with.”)

Same thing for the end temperature type.

Endtemperature = raw\_input(“Please enter the temperature type you wish to convert to.”)

Then I would prompt the numerical value of the temperature they are beginning with.

Tempvalue = input(“Please enter the numerical value of your temperature.”)

Now a series of if-then statements to determine the conversion rate.

If start. == Celsius and end. == Fahrenheit

Finaltemp = tempvalue \* 9/5 + 32

Print finaltemp

Elif start == Fahrenheit and end. == Celsius

Finaltemp = (tempvalue – 32) \* 5/9

Print finaltemp.

**Task 2: Point of Sale Video Game**

**Task 3: Compound Interest**

A = P (1+(r/n))^n\*t

P = principal

r = interest rate ()

n = number of compounds per year

t = number of periods

(t is in terms of years, n is in terms of compounds per year, r is in decimal form, and principal is numerical value of initial money)

I would prompt the user for each variable, then feed them into the main function.

Principal = input(“Enter in relevant value here.”)

InterestRate (r) = input(“Enter in relevant value here.”)

Number of compounds per year = input(“Enter in relevant value here.”)

Number of years (time) = input(“Enter in relevant value here.”)

A = P \* (1+(r/n))^(n\*t)

Then print A to tell the user the amount of compound interest they will receive.

**Task 4: Present Value of an Ordinary Annuity**

P = PMT [(1 - (1 / (1 + r)n)) / r]

P = present value of the annuity stream to be paid in the future

PMT = amount of each annuity payment

r = interest rate

n = number of periods over which payments are to be made

Again, I would prompt the user for each variable value. And then throw the variables into a function.

PMT = input(“Enter in relevant value here.”)

R = input(“Enter in relevant value here.”)

N = input(“Enter in relevant value here.”)

As a Highlander, I will always conduct myself with honor and integrity. I will not lie, cheat, or steal, nor will I accept the actions of those who do. This program is solely my work, or proper attribution has been given to code that I did not write. If I am found to violate this policy, I realize I will receive an F for this course with no exceptions.

Signed,

Andrew Taylor Caudill.

Sources:

<http://www.moneychimp.com/calculator/compound_interest_calculator.html>

<http://financeformulas.net/Present_Value_of_Annuity.html>

<https://www.programiz.com/python-programming/global-keyword>