CIS 1033 Program #1 Algorithm- Seth Miller

Input:

1. Print statement explaining to the user what the program does.
2. Ask user to enter in temperature between -58 & +41 degrees Fahrenheit.
3. Assign it to a logically named variable.
4. Ask user to enter in a wind speed greater than or equal to 2 miles per hour.
5. Assign it to a logically named variable.

Process:

1. Convert input variables to floating point values.
2. Assign floating points to new variables.
3. Check if entered values for variables are within valid range.
4. Print error message if values are not within valid range.
5. Enter in function for calculating wind chill that factors in actual temperature and wind speed.
6. Assign result to a logically named variable.

Output:

1. Display wind chill in nice, clean output format.

Test Data:

Test 1: Temperature = 0 degrees F Wind speed = 12 mph

Answer/Output (Wind chill): -17.46 degrees -Truncated: -17.4

Test 2: Temperature = 20 degrees F Wind speed = 6 mph

Answer/Output (Wind chill): 11.94 degrees -Truncated: 11.9

Test 3: Temperature = 32 degrees F Wind speed = 3 mph

Answer/Output (Wind chill): 29.308 degrees -Truncated: 29.3

*twc* = 35.74 + 0.6215*ta* – 35.75*v^*0.16 + 0.4275*tav^*0.16

twc = wind chill ta = actual temperature v = wind speed