**Montgomery College**

**CMSC 203**

**Assignment 1 Design**

Psuedocode:

Display header.

Declare double constants for the wind chill index: CON1 = 35.74, CON2 = 0.6215, CON3 = 35.75, and CON4 = 0.4275.

Declare double variable windSpeed, temp, and windChill.

Prompt the user to enter the value for windSpeed, and remind them the value range is between 5 and 60 inclusive.

Prompt the user to enter the value for temp, and remind them the value range is between -45 and 40 inclusive.

windChill = CON1 + CON2 \* temp - CON3 \* windspeed ^ 0.16 + CON4 \* temp \* (windspeed ^ 0.16)

print windChill, and “programmer's name: Jiaxi Tang”

Test Case:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case #** | **Input** | **Actual Input** | **Expected Output** | **Actual Output** | **Did the test pass?** |
| 1 | Temp:  30  Wind speed:  20 | Temp:  30  Wind speed:  20 | 17.361783756466327 | 17.361783756466327 | Yes |
| 2 | Temp:  0  Wind speed:  0 | Temp:  0  Wind speed:  0 | 35.74 | 35.74 | Yes |
| 3 | Temp:  -45  Wind speed:  60 | Temp:  -45  Wind speed:  60 | -98.0963449937 | -98.096344993 | Yes |