Design: Pseudocode and Test Table for Wind Chill Project

Project 1: Wind Chill Calculation

CREATE a class WindChill

DEFINE and INITIALIZE variables: temperature, windspeed, windchill

DISPLAY request for user to enter the temperature

READ temperature

DISPLAY request for user to enter the windspeed in a given range

READ windspeed

CALCULATE windchill = 35.74 + (0.6215\*temperature) – (35.75\*(windspeed^0.16) + (0.4275\*temperature\*windspeed^0.16)

DISPLAY the windchill in degrees Fahrenheit

Test Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case | Input | Actual Input | Expected Output | Actual Output | Did the test pass? |
| 1 | Temperature: -10  Windspeed: 30 | Temperature: -10  Windspeed: 30 | Wind Chill:  -39.44667 | -39.446669956722786 | Yes |
| 2 | Temperature: 10  Windspeed: 40 | Temperature: 10  Windspeed: 40 | Wind Chill:  -14.83897 | -14.838068940653246 | Yes |
| 3 | Temperature: -50  Windspeed: 65 | Temperature: -50  Windspeed: 65 | Wind Chill:  -106.73684 | -106.73683643349653 | Yes |
| 4 | Temperature: 30  Windspeed: 20 | Temperature: 30  Windspeed: 20 | Wind Chill:  17.36178 | 17.361783756466327 | Yes |
| 5 | Temperature: 40  Windspeed: 5 | Temperature: 40  Windspeed: 5 | Wind Chill:  36.47240 | 36.47240485832117 | Yes |
| 6 | Temperature: 12  Windspeed: 20 | Temperature: 12  Windspeed: 20 | WindChill:  -6.25242 | -6.252420125496235 | Yes |