Declare four double constants (NUM1,.., NUM4) that equal 35.74, 0.6215, 35.75, 0.4275

Declare 3 doubles: windChill, windSpeed, and tempInFah

Prompt user for temperature in Fahrenheit between -45 and 40 inclusive

Store input in tempInFah

If tempInFah is not between -45 and 40 inclusive

Display “Invalid temperature”

Else

Prompt user for wind speed

Store input in windSpeed

If tempInFah is not between 5 and 60 inclusive

Display “Invalid wind speed”

Else

Windchill = NUM1 + (NUM2\*tempInFah) - NUM3\*(windSpeed^0.16 power) + NUM4\*tempInFah\*(windSpeed^0.16)

Display windChill

End program

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case # | Input | Actual Input | Expected Output | Actual Output | Did the test pass? |
| 1 | Temp: -40  Wind Speed: 60 | Temp: -40  Wind Speed: 60 | -90.87346139 | -90.87346138519301 | Yes |
| 2 | Temp: 40.1  Wind Speed: 20.2 | Temp: 40.1 | Invalid temperature | Invalid temperature | Yes |
| 3 | Temp: 20.93  Wind Speed: 4 | Temp: 20.93  Wind Speed: 4 | Invalid wind speed | Invalid wind speed | Yes |