

PROBLEM 2.4

Wind chill factor is the felt air temperature on exposed skin due to wind. The wind chill temperature is always lower than the air temperature, and is calculated using the following formula: $wcf = 35.74 + 0.6215t + (0.4275t - 35.75)v^{0.16}$ where t is temperature, v is wind velocity. Write a program to receive values of t and v and calculate wcf .

ALGORITHM

1. Start
2. Declare float variables t, v and wcf
3. Take t and v as input
4. Calculate wcf using: $wcf = 35.74 + 0.6215t + (0.4275t - 35.75)v^{0.16}$
5. Display the inputs and results.
6. Stop

PSEUDOCODE

```
DECLARE FLOAT t,v,wcf
INPUT t,v
ASSIGN wcf to 35.74+0.6215t +(0.4275t - 35.75)*v^0.16
DISPLAY "Temperature : "
DISPLAY t
DISPLAY "Velocity : "
DISPLAY v
DISPLAY "Wind chill factor : "
DISPLAY wcf
```

FLOWCHART

```
flowchart TD
    A([Start]) --> B[Declare variables t,v,wcf]
    B --> C[/Take t,v as input/]
    C --> D[Calculate wcf]
    D --> E[/Display t and v/]
    E --> F[/Display wcf/]
    F --> G([Stop])
```