

## {Problem 1}

humidity\_relative=0.40  
temp\_dry=38[C]  
P=14.696\*convert(psia, kPa)

enthalpy=enthalpy(AirH2O,P=P,T=temp\_dry,R=humidity\_relative) {Enthalpy: enthalpy = 81.17 kJ/kg}  
temp\_wetBulb=wetbulb(AirH2O,P=P,T=temp\_dry,R=humidity\_relative) {Wetbulb Temperature: temp\_wetBulb = 26.27 C}  
temp\_dewPoint=dewpoint(AirH2O,P=P,T=temp\_dry,R=humidity\_relative) {Dewpoint Temperature: temp\_dewPoint = 22.05 C}  
volume\_specific=volume(AirH2O,P=P,T=temp\_dry,R=humidity\_relative) {Specific Volume: volume\_specific = 0.9051 m^3/kg}  
humidity\_specific=humrat(AirH2O,P=P,T=temp\_dry,R=humidity\_relative) {Specific Humidity: humidity\_specific = 0.01672}

## SOLUTION

## Unit Settings: SI C kPa kJ mass deg

enthalpy = 81.17	humidity <sub>relative</sub> = 0.4
humidity <sub>specific</sub> = 0.01672	P = 101.3 [kPa]
temp <sub>dewPoint</sub> = 22.05	temp <sub>dry</sub> = 38 [C]
temp <sub>wetBulb</sub> = 26.27	volume <sub>specific</sub> = 0.9051

4 potential unit problems were detected.