

{Question 2.A-2}

{Part A}

 $P_1 = 14.7 \cdot \text{convert}(\text{psi}, \text{kPa})$ $TSat_1 = \text{converttemp}(C, F, t_sat(Water, P=P_1))$ {Saturation Temperature: $TSat_1 = 212\text{ F}$ }

{Part B}

 $P_2 = 24.58 \cdot \text{convert}(\text{inHG}, \text{kPa})$ $TSat_2 = \text{converttemp}(C, F, t_sat(Water, P=P_2))$ {Saturation Temperature: $TSat_2 = 202.2\text{ F}$ }

{Part C}

 $P_3 = 30 [\text{kPa}]$ $TSat_3 = \text{converttemp}(C, F, t_sat(Water, P=P_3))$ {Saturation Temperature: $TSat_3 = 156.4\text{ F}$ }

SOLUTION

Unit Settings: SI C kPa kJ mass deg

 $P_1 = 101.4 [\text{kPa}]$ $TSat_1 = 212 [F]$ $P_2 = 83.24 [\text{kPa}]$ $TSat_2 = 202.2 [F]$ $P_3 = 30 [\text{kPa}]$ $TSat_3 = 156.4 [F]$

No unit problems were detected.