3.88 A 34 lb aluminum bar ($C_a = 0.216$ Btu/lb R), initially at 200°F, is placed in an open tank together with 250 lb of liquid water ($C_w = 0.998$ Btu/lb R), initially at 70°F. For the water and the bar as the system, determine the final equilibrium temperature, in °F, ignoring heat transfer between the tank and its surroundings.

3.91 Determine the compressibility factor for water vapor at 200 bar and 470°C, using data from the compressibility chart.

$^0R = ^0F + 460 \quad P_c = 220.9 \text{ bar} \quad T_c = 647.3 \text{ K}$
Figure A-1