

AME 20231

Homework 2

Due: Thursday, 23 January 2020, beginning of class

1. 1.32, instead let the material be diatomic oxygen, O_2 .
2. 1.40, instead let $P_{atm} = 120$ kPa.
3. 1.58, instead assume the air density of 1.10 kg/m³.
4. 1.77, instead let the water main pressure be 700 kPa.
5. Write and execute a program to list corresponding temperatures in °C, K, F and R from -50 °C to 100 °C in increments of 10 degrees. Use *any* language or application with which you are familiar (C, C++, MATLAB, Mathematica, Fortran, Ada, Cobol, Pascal, Basic,...). Include your source code in your homework submission. Write your code so that it can handle an arbitrary temperature increment, not just a temperature increment of 10 degrees. This will likely require that you use a loop in your program. Paste a single computer-generated sample plot of your output to your homework. Be sure to label your axes and include units on your axes. Be sure that the plot is elegantly prepared.