

AME 20231

Homework 2

Due: Tuesday, 16 February 2021, 9:00 AM, on Sakai

1. 1.30, instead let the air density be 1.1 kg/m^3 .
2. 1.43, instead let $P_{atm} = 120 \text{ kPa}$.
3. 1.59, instead assume the diver's depth be 15 m .
4. 1.76, instead let the air pressure over the water surface be 130 kPa .
5. Write and execute a program to list corresponding temperatures in $^{\circ}\text{C}$, 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**, **Python**, **VBA**, **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.