

AME 20231  
Homework 3  
Due: Friday, 3 February 2012, in class

1. 3.72, use instead a diameter of 11  $m$ .
2. 3.108; show details for all calculations; do not just report software output,
3. 3.122, Perform two sets of calculations for this problem: a) ideal gas equation of state, b) tabular equation of state, Table B.3.
4. 3.166E, use instead a tank volume of 36  $ft^3$ .
5. 3.182; Make your comparison in the form of a plot of  $P$  versus  $T$ . Use appropriate SI units for pressure and temperature, and label your plot appropriately. Your plot should have a continuous curve for the predictions of Wagner's equation; do not use circles or stars, etc., to label any individual points. The data from the tables should be labeled by a discrete marker such as a little circle or star. The data from the table should not have any curve connecting its points on your graph; just put in the raw data points. Tape a neatly trimmed plot to your homework submission, *and* post a *readable* version of the plot onto your web site. Make sure the grader can easily find your plot on your web site. It is best that the graphics files be in .jpg or .gif formats. There are many ways to achieve this.