

AE 360

Homework 4

Due: Thursday, 6 February 1997, in class

1. Course notes, first exercise on p. 55.
2. Course notes, second exercise on p. 55.
3. Course notes, third exercise on p. 55.
4. Find an analytic expression for the Helmholtz free energy of a van der Waals gas.
5. Moran and Shapiro, Third Edition, 9.109, p. 449.
6. Write a short description, suitable for an intelligent non-engineer, of how a jet engine really works. Try not to avoid concepts from science and engineering, but to word them in a way that AERO 240, AERO 350, ME 327, and AERO 360 are not prerequisites. Write this in html and post it on your web page. Include as many or as few creative graphical images and links as you feel may be necessary to make your point. In the spirit of the web, feel free to peruse other web pages, including your colleagues', for ideas and concepts, but use your own words. Avoid the too common web phenomena of not giving attribution for images and ideas that are not your own; that is, give a couple footnotes!