

Due date: Tuesday, Feb. 26

Deadline: Thursday, Feb. 28

B means a problem in Blundell & Blundell's text; GT means a problem in Gould & Tobochnik.

Apologies, I thought I had posted this on Tuesday, but evidently messed up somewhere. In compensation, I am shortening the assignment.

~~1. B 9.2 (No comments needed on your results.)~~

1. B 9.5

~~2. B 10.9~~

2. B 11.1

3. B 11.2

6. *I will do this problem in class rather than assigning it.*

Consider a rectangular cyclic path ABCDA in the pV diagram of an ideal gas. Let A be (V_1, p_2) , B be (V_2, p_2) , C be (V_2, p_1) , D be (V_1, p_1) . Assume $p_2 > p_1$ and $V_2 > V_1$. The graph resembles Fig. 13.2, but with the vertical axis labeled p and the horizontal axis V , $T_h \rightarrow p_2$, $T_\ell \rightarrow p_1$, and no adiabat or isotherm labels or Q 's. How much work is done *on* the gas during this cyclic process?