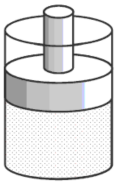
Thermodynamic Variables List ALL of the thermodynamic variables and constants that you can think of. Include their name, the letter that represents them, their units, and their value (if applicable).

Write a Question As a group, write up a question and a solution for one of the thermodynamic topics covered so far in PH 202. Be sure to include all of the information necessary to solve the problem. Be sure your solution has not only the correct answer but all of the relevant equations and steps for solving for it.

[0]Select problems may be modified from Walsh, Harrison, or the Internet.

Heat Transfer A system does $1.80 \times 10^8 J$ of work while $7.50 \times 10^8 J$ of heat transfer occurs to the environment. What is the change in internal energy of the system assuming no other changes (such as in temperature or by the addition of fuel)?

Gas on the Counter This container of an ideal gas is sitting on the recitation table when you come in. You notice over the course of class time that the volume triples in size. What else do you know must have *changed* about this gas? By how much did it change?



How many moles? If I have $72L$ of an ideal gas held at a pressure of $3.4atm$ and a temperature of $225K$, how many moles of gas do I have?
How would you solve this if I asked for molecules instead?
What is the conversion between moles and molecules?