**Final PV Practice Problems**

**1.** Suppose 2 moles of a monatomic ideal gas occupies 5 m3 at a pressure of 1600 Pa.

**Q1:** Find the temperature of the gas in Kelvin.

**Q2:** Find the total internal energy of the gas.

**2.** Suppose the gas undergoes an isobaric expansion to a volume of 7 m3.

(**Don’t forget** to include + and – in each of the problems below)

**Q1:** Find Q

**Q2:** Find W

**Q3:** Find ∆U

**3.** Suppose the gas then undergoes adiabatic expansion to a pressure of 900 Pa and a volume of 11.5 m3.

Q1: Find Q

Q2: Find W

Q3: Find ∆U

**4.** The gas then undergoes isothermal compression to a volume of 5 m3.

**Q1:** Find Q

**Q2:** Find W

**Q3:** Find ∆U

**5.** The gas then undergoes an isochoric process and returns to 1600 Pa of pressure.

**Q1:** Find Q

**Q2:** Find W

**Q3:** Find ∆U

**6.** Draw this process.