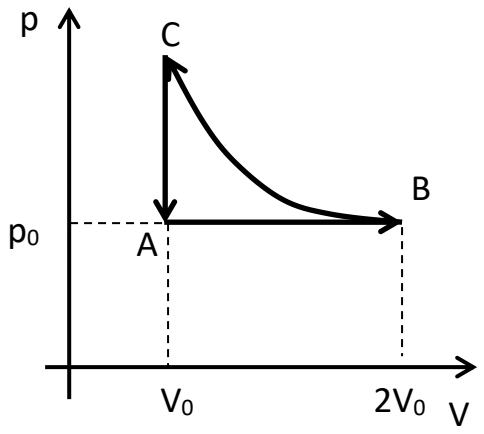
Physics 1135 Homework # 30

A monatomic ideal gas is taken through the cycle **A-B-C-A** shown in the figure. Find:



1. the heat flowing into the gas during the process A –B

2. the work done by the gas during process A –B

3. the change in internal energy from A to B

4. If we know that the internal energy of the monoatomic ideal gas remains constant during the process B-C, what must be the pressure at point C?

Find:

5. the work done by the gas during the process B-C

6. the heat flowing into the gas during the process B –C

7. the heat flowing into the gas during the process C –A

8. the work done by the gas during process C –A

9. the change in internal energy from C to A

10. What is the total work done by the system in the complete cycle?

11. How much heat flows into the system in a complete cycle?