Thermodynamics Tutorial-II
Isobaric Process

A process taking place at constant pressure is called an isobaric process.
1) Work done $W = P(V_2 - V_1)$
2) $\Delta U = nR(T_2 - T_1)$
Isochoric Process

- In an isochoric process volume of the system remain uncharged throughout i.e. \( \Delta V = 0 \).

- When volume does not change no work is done; \( \Delta W = 0 \) and therefore from first law
  \[
  U_2 - U_1 = \Delta U = \Delta Q
  \]

- All the heat given to the system has been used to increase the internal energy of the system.
How to Solve the Thermodynamics Problems

• Define the system you are dealing with and isolate it from surrounding
• Apply the first law of thermodynamics to the processes undergone by the system
• Remember the various thermodynamics processes explained earlier.
• Make sure to use same units for Heat and work to have in the first law of thermodynamics
• Remember the sign of Heat and Work. Heat given is + and heat taken is -. Similarly Work done by the system + and Work done on the system is -
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http://physicscatalyst.com