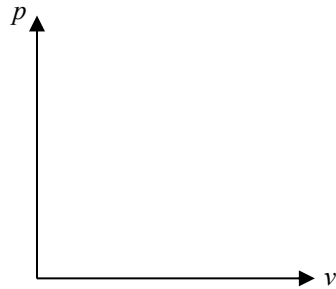


**Polytropic Processes**

### Polytropic Processes

A polytropic process is one in which  $pV^n = \text{constant}$ , where  $n$  is a constant.



- if  $n = 0$ , then the process is isobaric
- if  $n = \pm\infty$ , then the process is isometric
- if  $n = 1$  and the gas is ideal, then the process is isothermal
- if  $n = k$  and the gas is ideal, then the process is isentropic

The (pressure) work done by the gas in a polytropic process:

