# Polytropic Relationships

## Polytropic relationship means that:

 $p\*V^{n}=constant$

$$p\_{1}\*V\_{1}^{n}= p\_{2}\*V\_{2}^{n}$$

$$\frac{p\_{2}}{p\_{1}}= \left(\frac{V\_{1}}{V\_{2}}\right)^{n}$$

## Meanings Behind Important Polytropic Exponents

When n = 0 isobaric process

When n = 1 isothermal process (Ideal Gas Behavior)

When n = cp/cv = k = γ Adiabatic process

When n = ∞ isochoric process