



Principle of homogeneity

- Same P^o can be added, subtracted, equated
- we can multiply and divide any ~~two~~ P^o

Principle of homogeneity state that

we can relate two same P^o with (+, -, =, >, <, ≥, ≤)

$$L + L = L$$

$$L - L = L$$

Q7) The distance covered by a particle in time t is given by -
 $x = at + bt^2 + ct^3 + dt^4$, find the dimension of a, b, c, d

$$x = at + bt^2 + ct^3 + dt^4$$

$$a = L$$

$$[bT] = [L]$$

$$b = LT^{-1}$$

$$[ct^2] = [L]$$

$$c = LT^{-2}$$

$$[dt^3] = [L]$$

$$d = LT^{-3}$$