Weight while free fall = 0

Normal force between two bodies

&image&

a

a

F1

F2

N

N

F2

F1

`N = (F\_{1}m\_{2} + F\_{2}m\_{1})/(m\_{1} + m\_{2}) = T`

(T is tension, N is the normal force)

Pully , string, constrained motion:

`Sum vec N \*vec s = 0`

`Sum vec N \*vec v = 0`

`Sum vec N \*vec a = 0`

`Sum vec T \*vec s = 0`

`Sum vec T \*vec v = 0`

`Sum vec T \*vec a = 0`

It means the sum of all T(tension) multiplied by the acceleration caused by it will be equal to zero

`T = ((n\_{1}F\_{1})/m\_{1} + (n\_{2}F\_{2})/m\_{2})/(n\_{1}^2/m\_{1} + n\_{2}^2/m\_{2})`

N = no of tensions on body