FORMULARIO FISICA

CINEMATICA:

MOTO UNIFORME ($\nabla v = 0$)

$x(t) = x_0 t + v_0 t$ → SPAZIO

MOTO UNIFORMEMENTE ACCELLERATO ($\nabla a = 0$)

$v(t) = v_0 + at$ → VELOCITÀ (IN RELAZIONE AL TEMPO)

$x(t) = x_0 + v_0 t + \frac{1}{2} a t^2$ → SPAZIO

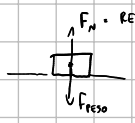
$v(t)^2 = v_0^2 + 2a(x - x_0)$ → VELOCITÀ (IN RELAZIONE AL TEMPO)

MOTO ACCELLERATO NON-UNIFORME

$v(t) = v_0 t + \int_{t_0}^{t} a(t)\, dt$ → VELOCITÀ AL TEMPO t

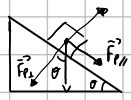
DINAMICA:

$F = m \cdot a$



DOVE $F_{peso} + F_N = 0$

PIANO INCLINATO:



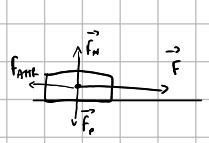
$\vec{F}_p = \vec{F}_{p_{//}} + \vec{F}_{p_\perp}$

$\vec{F}_{p_{//}} = mg \cdot \sin\theta\, \hat{//}$

$\vec{F}_{p_\perp} = mg \cdot \cos\theta\, \hat{\perp}$

$\vec{F}_N = \vec{F}_N\, \hat{\perp}$

ATTRITO



PER INIZIARE A MUOVERE: $\vec{F} = \mu_S \cdot |\vec{F}_N|$ (STATICO)

IN MOVIMENTO: $\vec{F} - \mu_D \cdot |\vec{F}_N| = m \cdot a$ (DINAMICO)