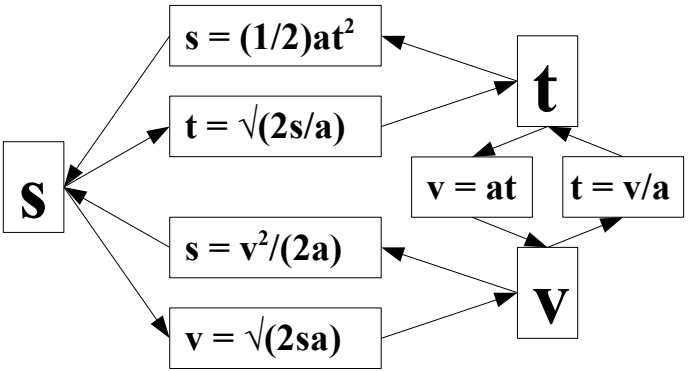
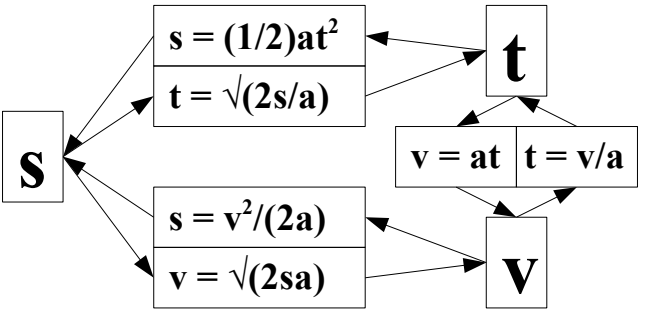
Qui seguono le varie stesure della mappa, dalla prima all'ultima.
Lo scopo e' mostrare che non riesce al primo colpo, ma occorre rielaborare piu' volte, sia per il contenuto che per la forma.

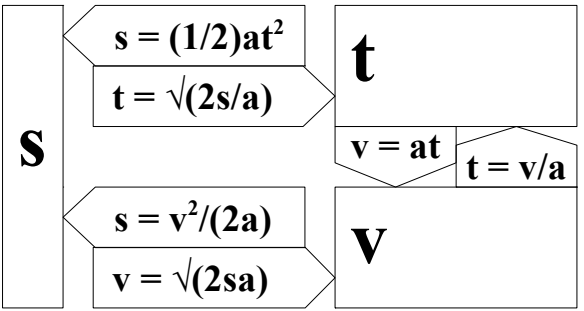
MAK $v_0 = 0$



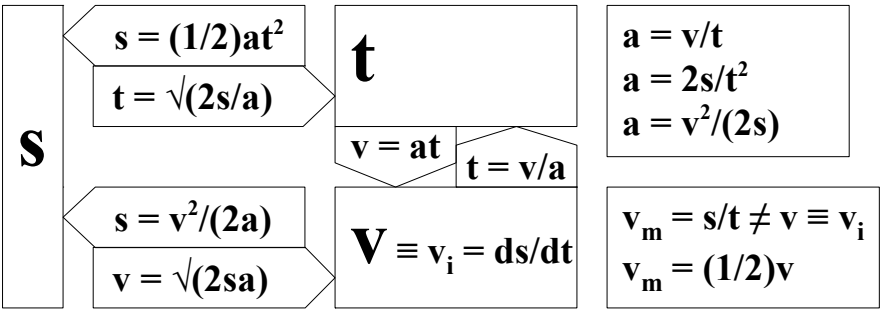
MAK $v_0 = 0$



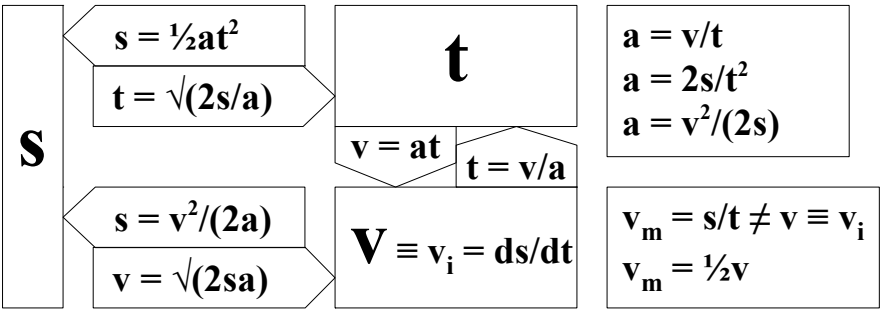
MAK $v_0 = 0$



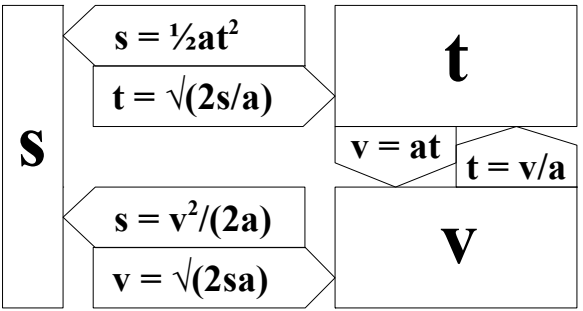
MAK $v_0 = 0$


s
s = (1/2)at²
t = √(2s/a)
t
v = at
t = v/a
a = v/t
a = 2s/t²
a = v²/(2s)
s = v²/(2a)
v = √(2sa)
V ≡ v_i = ds/dt
v_m = s/t ≠ v ≡ v_i
v_m = (1/2)v

MAK $v_0 = 0$


s
$s = \frac{1}{2}at^2$
$t = \sqrt{(2s/a)}$
t
$a = v/t$
$a = 2s/t^2$
$a = v^2/(2s)$
v = at
t = v/a
$s = v^2/(2a)$
$v = \sqrt{(2sa)}$
$v \equiv v_i = ds/dt$
$v_m = s/t \neq v \equiv v_i$
$v_m = \frac{1}{2}v$

MAK $v_0 = 0$



$a = v/t$
$a = 2s/t^2$
$a = v^2/(2s)$

$v_m = s/t \neq v \equiv v_i$
$v_i = ds/dt$
$v_m = ½v$

Per ragioni legate alla formulazione della dinamica, per cercare un insegnamento integrato di cinematica e dinamica

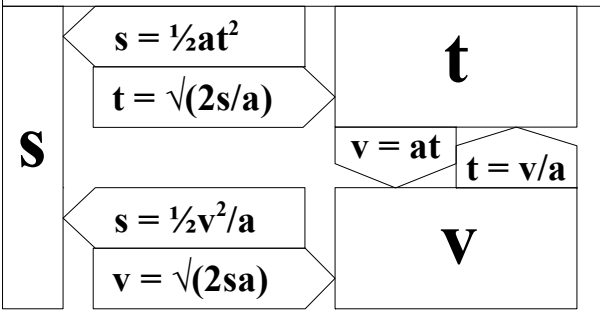
$a = v^2/(2s)$

$s = v^2/(2a)$

sono riscritte in modo da richiamare l'energia cinetica.

AndreaFarusi fa prima la dinamica e poi la cinematica.

MAK $v_0 = 0$. a=k s t v =var



$a = v/t$

$a = 2s/t^2$

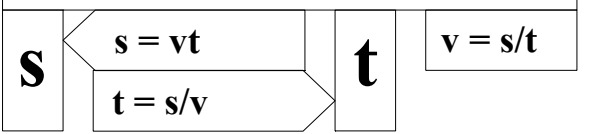
$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

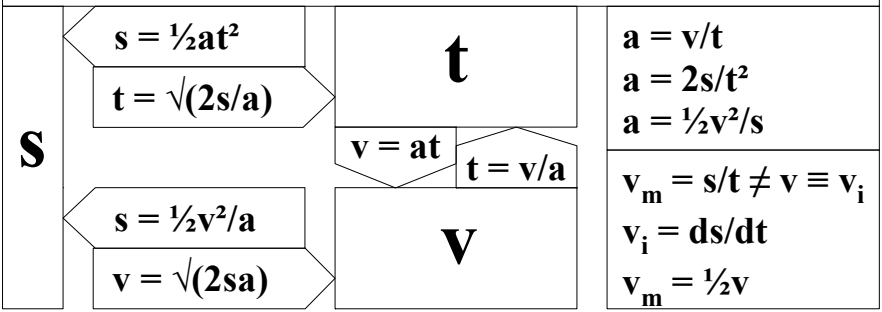
$v_m = \frac{1}{2}v$

MVK. v=k s t =var

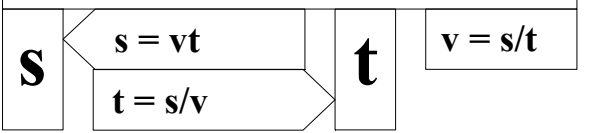


$v = s/t$

MAK $v_0 = 0$. a=k s t v =var



MVK. v=k s t =var



Elevamento al quadrato fatto col carattere apposito. Preferisco html

MAK $v_0 = 0$. a=k s t v =var

s

$s = \frac{1}{2}at^2$

$t = \sqrt{(2s/a)}$

t

$v = at$

$t = v/a$

$s = \frac{1}{2}v^2/a$

$v = \sqrt{(2sa)}$

v

$a = v/t$

$a = 2s/t^2$

$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

$v_m = \frac{1}{2}v$

MVK. v=k s t =var

s

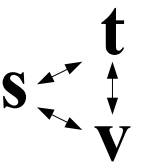
$s = vt$

$t = s/v$

t

$v = s/t$

(s,t,v)



Introduzione del grafico.

MAK $v_0 = 0$. a=k s t v =var

s

$s = \frac{1}{2}at^2$

$t = \sqrt{(2s/a)}$

t

$v = at$

$t = v/a$

$s = \frac{1}{2}v^2/a$

$v = \sqrt{(2sa)}$

v

$a = v/t$

$a = 2s/t^2$

$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

$v_m = \frac{1}{2}v$

(s,t,v)

s ↔ t

v

MVK. v=k s t =var

s

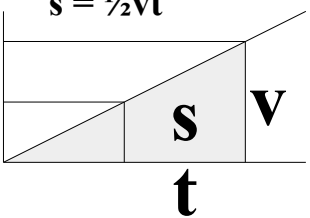
$s = vt$

$t = s/v$

t

$v = s/t$

$s = \frac{1}{2}vt$



MAK $v_0 = 0$. a =k s t v =var

(s,t,v)

s ↔ t

v

s

$s = \frac{1}{2}at^2$

$t = \sqrt{(2s/a)}$

t

$v = at$

$t = v/a$

$s = \frac{1}{2}v^2/a$

$v = \sqrt{(2sa)}$

v

$a = v/t$

$a = 2s/t^2$

$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

$v_m = \frac{1}{2}v$

MVK. v=k s t =var

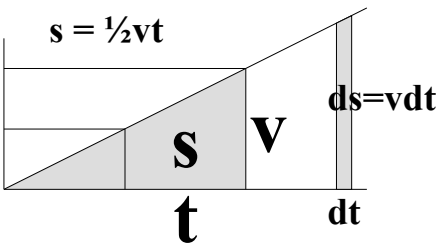
s

$s = vt$

$t = s/v$

t

$v = s/t$



MAK $v_0 = 0$. a =k s t v =var

s

$s = \frac{1}{2}at^2$

$t = \sqrt{(2s/a)}$

t

$v = at$

$t = v/a$

$s = \frac{1}{2}v^2/a$

$v = \sqrt{(2sa)}$

v

$a = v/t$

$a = 2s/t^2$

$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

$v_m = \frac{1}{2}v$

(s,t,v)

s ↔ t

v

MVK. v=k s t =var

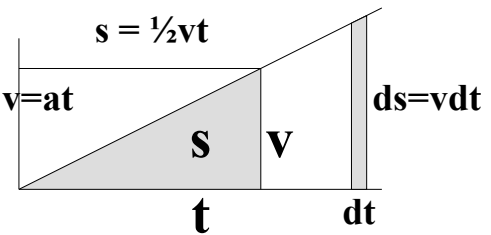
s

$s = vt$

$t = s/v$

t

$v = s/t$



MAK $v_0 = 0$. a =k s t v =var

s

$s = \frac{1}{2}at^2$

$t = \sqrt{(2s/a)}$

t

$v = at$

$t = v/a$

$s = \frac{1}{2}v^2/a$

$v = \sqrt{(2sa)}$

v

$a = v/t$

$a = 2s/t^2$

$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

$v_m = \frac{1}{2}v$

(s,t,v)

s ↔ t

v

MVK. v=k s t =var

s

$s = vt$

$t = s/v$

t

$v = s/t$

$s = \frac{1}{2}vt$

v=at

s

v

ds=vdt

t

dt

MAK $v_0 = 0$. a =k s t v =var

(s,t,v)

s ↔ t

v

s

$s = \frac{1}{2}at^2$

$t = \sqrt{(2s/a)}$

t

$v = at$

$t = v/a$

$s = \frac{1}{2}v^2/a$

$v = \sqrt{(2sa)}$

v

$a = v/t$

$a = 2s/t^2$

$a = \frac{1}{2}v^2/s$

$v_m = s/t \neq v \equiv v_i$

$v_i = ds/dt$

$v_m = \frac{1}{2}v$

MVK. v=k s t =var

s

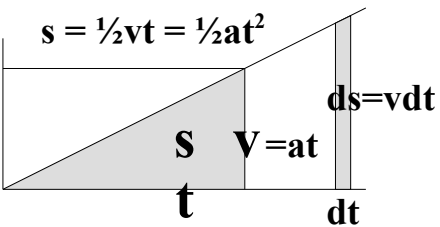
$s = vt$

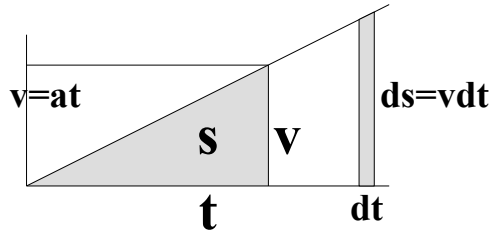
$t = s/v$

t

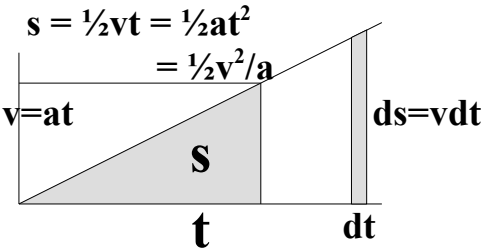
$v = s/t$

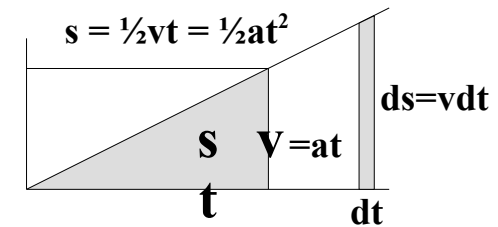
$s = \frac{1}{2}vt = \frac{1}{2}at^2$

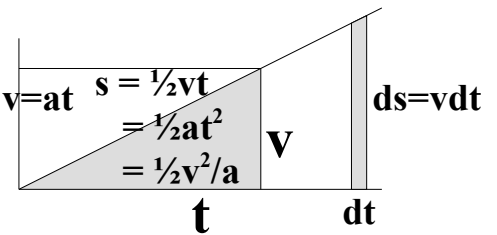




$s = ½vt = ½at^2 = ½v^2/a$







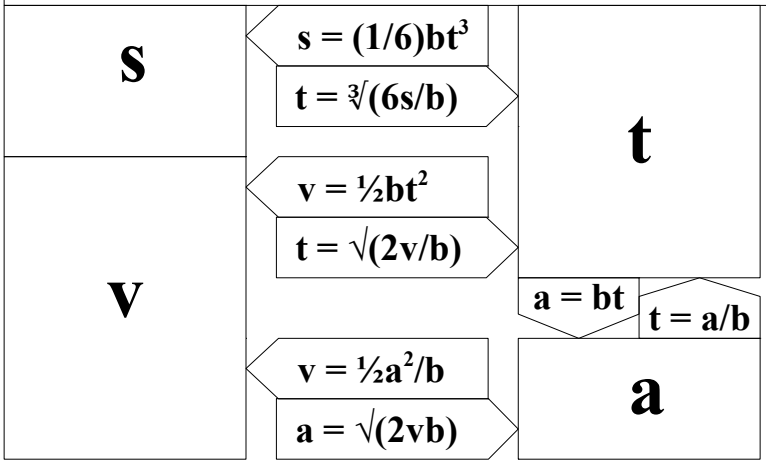
s

Tento di ...

s t v sono variabili
a variabile costante

Moto senza sobbalzi

MBK: $v_0 = 0$, $a_0 = 0$, $a = bt$, $b = da/dt$, $b = k$, s t v a =var



$b = a/t$
$b = 2v/t^2$
$b = 6s/t^3$
$b = \frac{1}{2}a^2/v$
$b = \sqrt{((1/6)a^3/s)}$
$b = (2/9)v^3/s^2$

$a_m = v/t \neq a \equiv a_i$
$a_i = dv/dt$
$a_m = \frac{1}{2}a$

$s = (1/3)vt$
$s = (1/6)at^2$
$v = \frac{1}{2}at$

spazio del moto = spazio percorso
tempo del moto = tempo trascorso
d = di del
lung lunghezza
crc circonferenza