Ch 2 Review

Distance	Displace-ment	Avg	Speed	Velocity	Acceleration
total dist	diff from start-end	middle	rate	speed + dir	change (v2)
d	x	—	u	v	a
			d/t	x/t	Δv/t
Scalar	Vector		Scalar	Vector	Vector

magnitude = number/size not +/-

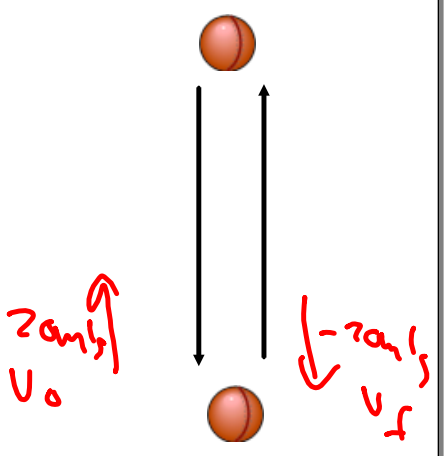
Free Fall

a = $-10 m/s^2$

v_f at top = 0

v_f at ~~top~~ bottom = v_o at bottom

$t_{up} = t_{down}$



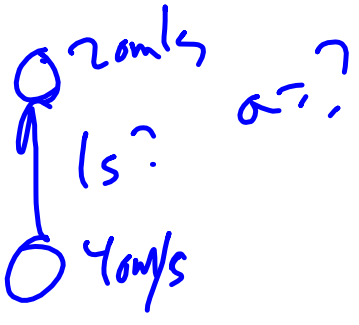
READ carefully...

where do you start?

where do you end?

is a = -10 m/s^2

NEVER assume!!!



Equations:

No acceleration:

$\bar{v} = x/t$ (THIS IS AVERAGE V!!!)

Acceleration:

$x = 1/2(v_o + v_f)t$

$\bar{v} = 1/2(v_o + v_f)$ (THIS IS AVERAGE V!!!)

$x = 1/2\ at^2 + v_o t + x_o$ (NO v_f)

$v_f = at + v_o$ (NO x)

$v_f^2 = 2ax + v_o^2$ (NO t)

Graphs

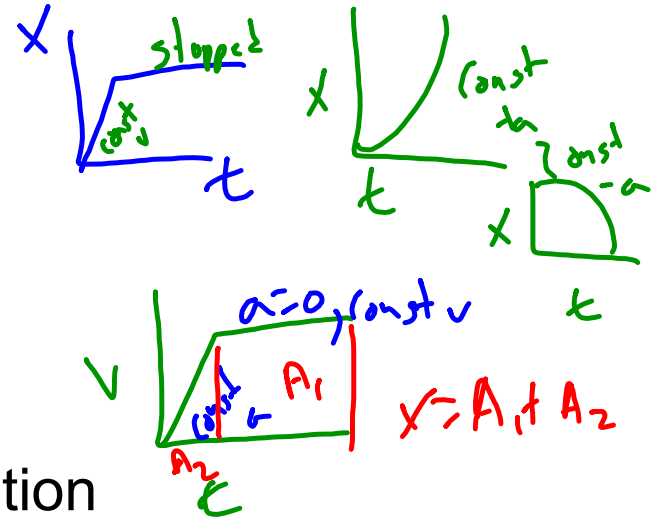
Position time:

slope = velocity

Velocity time:

slope = acceleration

area = displacement



Acceleration Time:

area = final velocity

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