

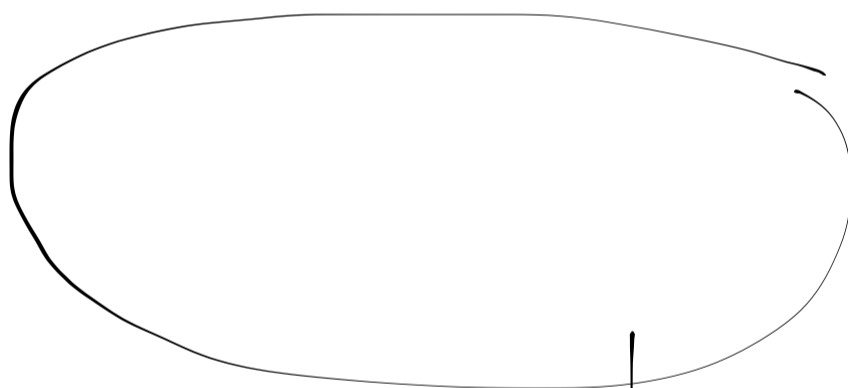
Block 5 Aug 29

Unit 2 - Motion in One direction

Position X

change in position $\Delta X = X_f - X_i$ ^{final} ^{initial} displacement
 say "delta x"
 not same as distance!

distance v. displacement
 consider a track meet



start/finish

$$\Delta t = t_f - t_i$$

time

Pretend
 a class starts at 10:05
 and ends at 10:55
 calculate Δt

pretend a class meets for 50 minutes
 it ends at 10:55
 when did it start?

write eq
 id givens and seek

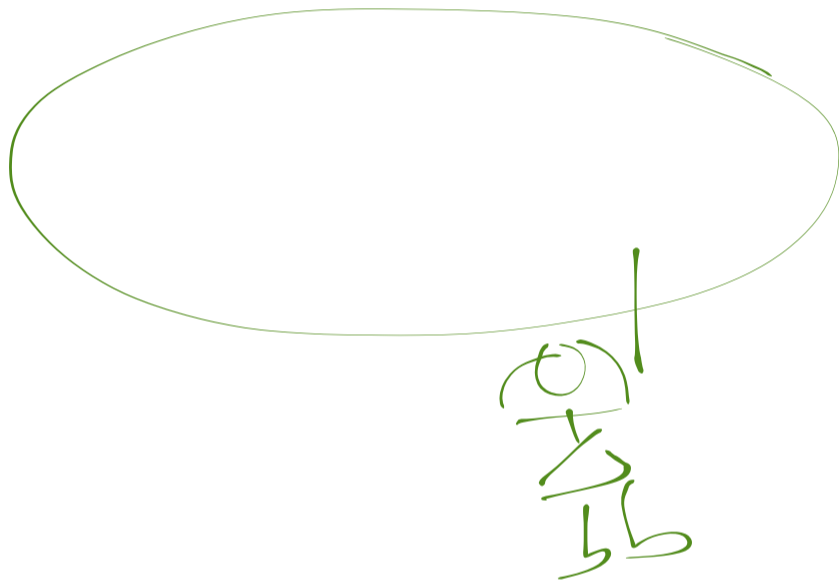
solve eq for seek
substitute & solve

velocity and speed

"avg bar"
 $\bar{v} = \frac{\Delta x}{\Delta t}$

average velocity = $\frac{\text{change in position}}{\text{change in time}} = \frac{\text{displacement}}{\text{change in time}}$

speed = $\frac{\text{distance}}{\text{change in time}}$



1 min = Δt
1 lap

change in velocity $\Delta v = v_f - v_i$

pretend a runner starts at $0 \frac{\text{m}}{\text{sec}} = v_i$

and ends at $10 \frac{\text{m}}{\text{sec}} = v_f$

what is her change in velocity? Δv

$$\Delta v = v_f - v_i$$
$$\frac{10 \text{ m}}{\text{sec}} - \frac{0 \text{ m}}{\text{sec}} = 10 \frac{\text{m}}{\text{sec}}$$

