AP: GET 2 COPIES OF EQN SHEET
1 COPY OF QUIZ KEY

WE'LL GO OVER EMVA LAB, QUIZ, etc.

IB: WORK ON MP 'TIL ~9:00
THEN Qs AND INTRO TO THE EMVAs (SECOND HALF OF CHAP 2)

Sep 20-8:20 AM

PERCENT DIFF:

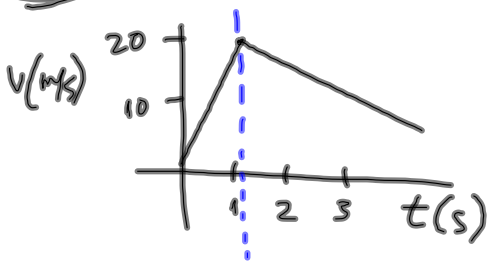
BETWEEN a & b

$$\frac{|a-b|}{\text{AVG of } a,b} \cdot 100\% = \frac{|a-b|}{\left(\frac{a+b}{2}\right)} \times 100\%$$

Sep 20-8:47 AM

AP PRACTICE PROBLEMS

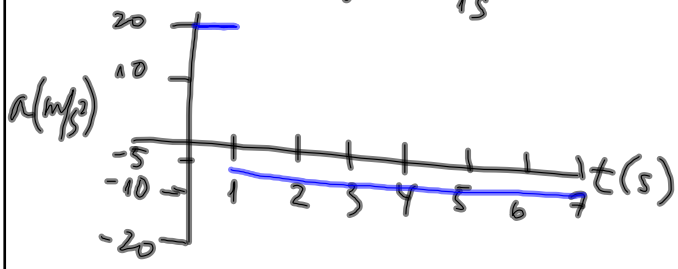
F.R. d. THE SLOPE OF V vs t IS a



WE HAVE 2 as ON THIS GRAPH

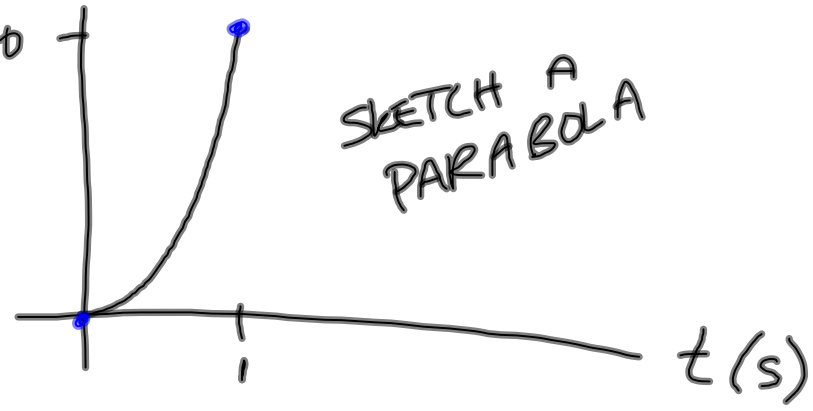
SLOPE FROM $t = 0 \rightarrow 1$

$$a = \frac{RISE}{RUN} = \frac{20 m/s}{1 s} = 20 m/s^2$$



Sep 20-8:51 AM

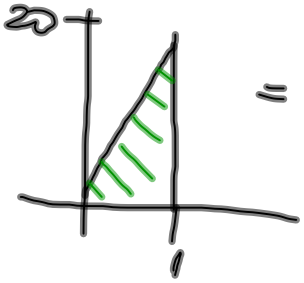
(e)



SKETCH A PARABOLA

DISPLACEMENT = AREA UNDER V vs t GRAPH

for $t = 0 \rightarrow 1s$



$= 10m$

Sep 20-8:59 AM

5 MC.

GIVEN: $V_0 = 0$

$a = 5\ m/s^2$

$\Delta x = 200\ m$

FIND: t

NO CALC.
NO EQ'N SHEET

$\Delta x = \cancel{V_0 t}^{0} + \frac{1}{2} a t^2$

$t^2 = \frac{2\Delta x}{a} = \frac{2 \cdot 200m}{5} = 80$

$t^2 = 80$

Sep 20-9:05 AM

1B
2.20

GIVEN: $20\ m/s$, $10\ miles$

$30\ m/s$, $10\ miles$

FIND: V_{avg}

CONVERT $10\ miles \cdot \frac{1609\ m}{1\ mile} = 16090\ m$

① $V = \frac{\Delta x}{t}$, $t = \frac{\Delta x}{V} = \frac{16090m}{20m/s} = 804.5s$

② $t = \frac{\Delta x}{V} = \frac{16090m}{30m/s} = 536.3s$

$V_{avg} = \frac{\Delta x_1 + \Delta x_2}{t_1 + t_2} = \frac{32180m}{1340.8s} = 24\ m/s$

Sep 20-9:09 AM

2.9 GIVEN: $V = 65\ km/hr$

$t = 3.2\ min$

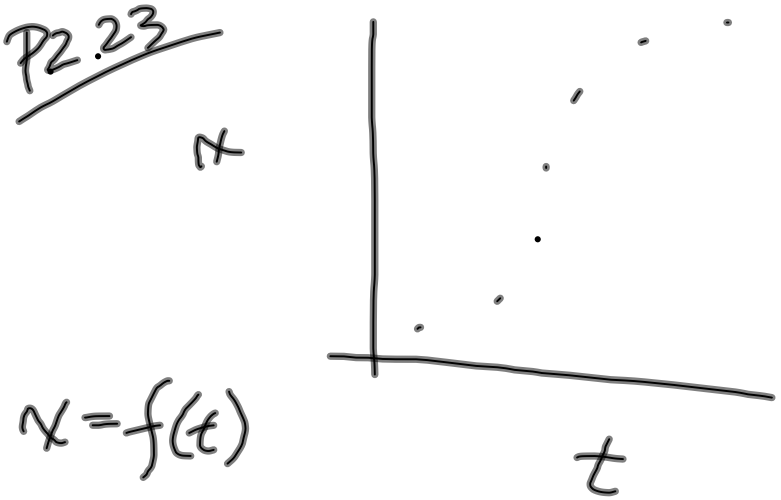
FIND: $\Delta x = ?$

$3.2\,m \cdot \frac{1\ hr}{60\ mi} = 0.053\ hr$

$V = \frac{\Delta x}{t}$ ← SOLVE

Sep 20-9:15 AM

P2.23



$x = f(t)$

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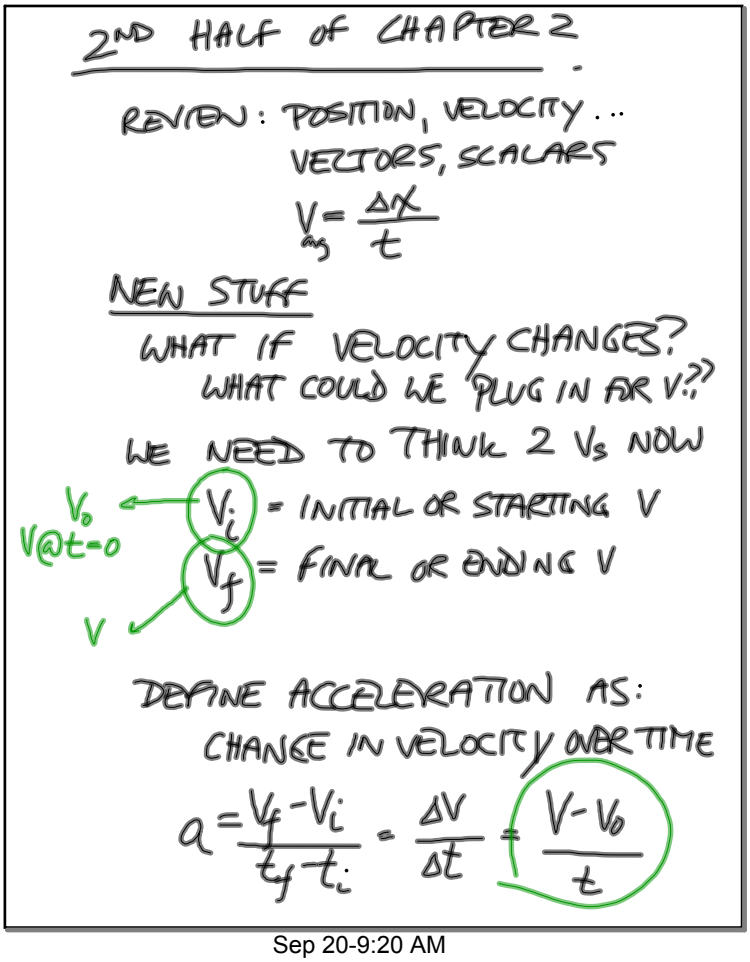
2ND HALF OF CHAPTER 2
REVIEW: POSITION, VELOCITY...
VECTORS, SCALARS
$V_{avg} = \frac{\Delta x}{t}$
NEW STUFF
WHAT IF VELOCITY CHANGES?
WHAT COULD WE PLUG IN FOR V??
WE NEED TO THINK 2 Vs NOW
V_0
V@t-0
V_i = INITIAL OR STARTING V
V_f = FINAL OR ENDING V
V
DEFINE ACCELERATION AS:
CHANGE IN VELOCITY OVER TIME
$a = \frac{V_f - V_i}{t_f - t_i} = \frac{\Delta V}{\Delta t} = \frac{V - V_0}{t}$

Sep 20-9:20 AM