22. $y = 1$

$4\ y = 4\left(\frac{-3}{4}(x+2)+1\right)$

24. $4(y) = 4\left(-\frac{3}{4}x - \frac{1}{2}\right)$

$4y = -3(x+2)+4$

$4y = -3x-6+4$

$4y = -3x-2$

$3x+4y = -2$

$3x+4y=-2$

41. $x+y=1$

$2x+ky=3$

$m=-1$

$m=-\frac{2}{k}$

$+1 = +\frac{2}{k}$ || $k=2$

$\perp$ $m=-1$ $k=2$

$m=1$

33. $(-2, 4)$ $x = 5$

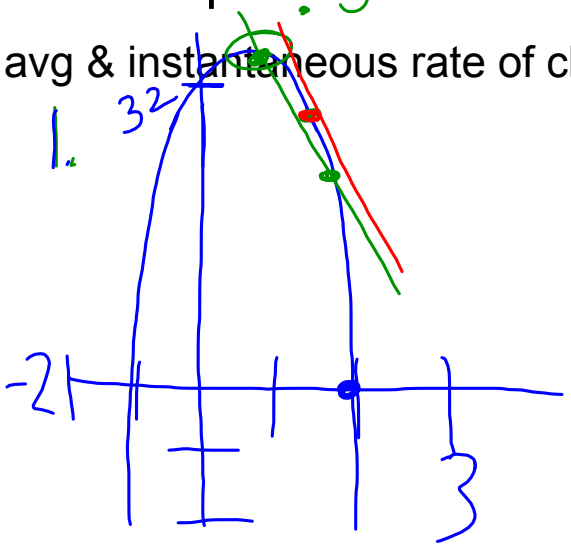
$\perp$ $x = -2$

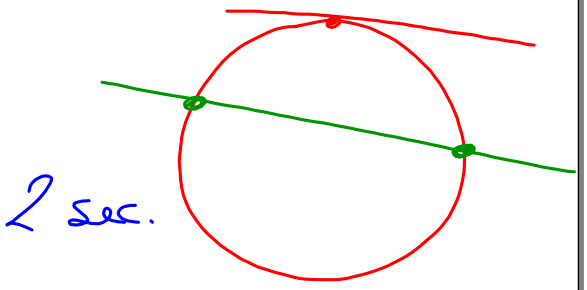
$\perp$ $y = 4$

2.4a Average Rate of Change

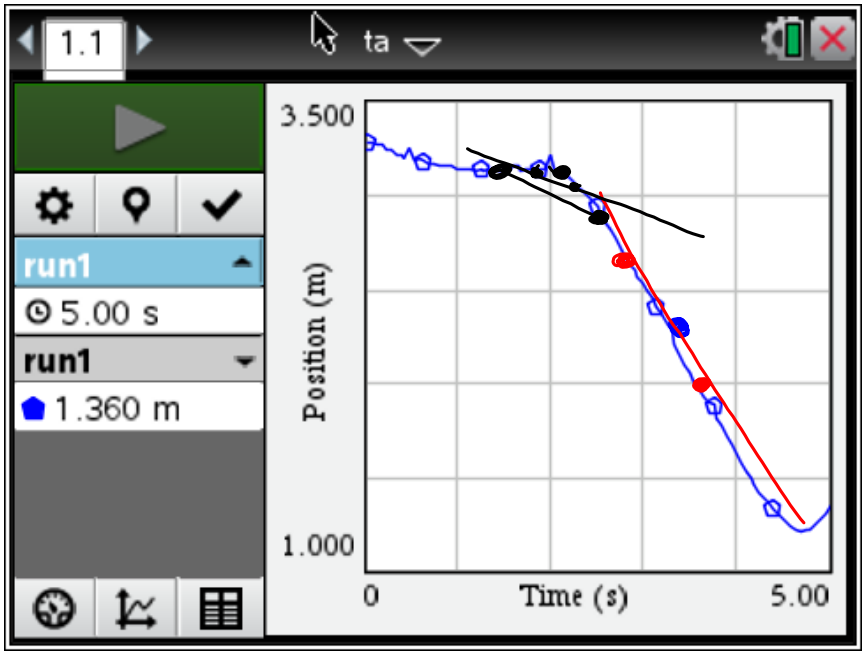
Warm-Up

avg & instantaneous rate of change wkst. #1&2





perform a walk



Warm-Up

worksheet #1 & 2

6. $8 \frac{ft.}{sec.}$ up because (+)

7. $-24 \frac{ft.}{sec.}$ down (-)

[1, 1.01] 1, 1.001 1, 1.0001

h h h

(1, 32)

(1.01, 31.8384)

$$\frac{31.8384 - 32}{1.01 - 1} = -16.16$$

-16.16 -16.016 -16.0016

$$\lim_{(x_2 - x_1) \to 0} \left(\frac{y_2 - y_1}{x_2 - x_1} \right) = -16$$

HW: Finish green sheet

#1, 3 on 2.4a

estimate the velocity at t = ____

right hand difference quotient (rhdq) #9 on wkst

left hand difference quotient (lhdq) #10 on wkst

symmetric difference quotient (sdq)

A ball is dropped from the top of a 70 foot building. Its height above ground after t seconds is $70 - 16t^2$

How fast is the ball falling after 2 seconds?

The table shows the coordinates of a moving particle. Estimate the velocity at t = 3.

t sec	0	.5	1	1.5	2	2.5	3	3.5	4
s (ft)	3.5	-4	-8.5	-10	-8.5	-4	3.5	14	27.5