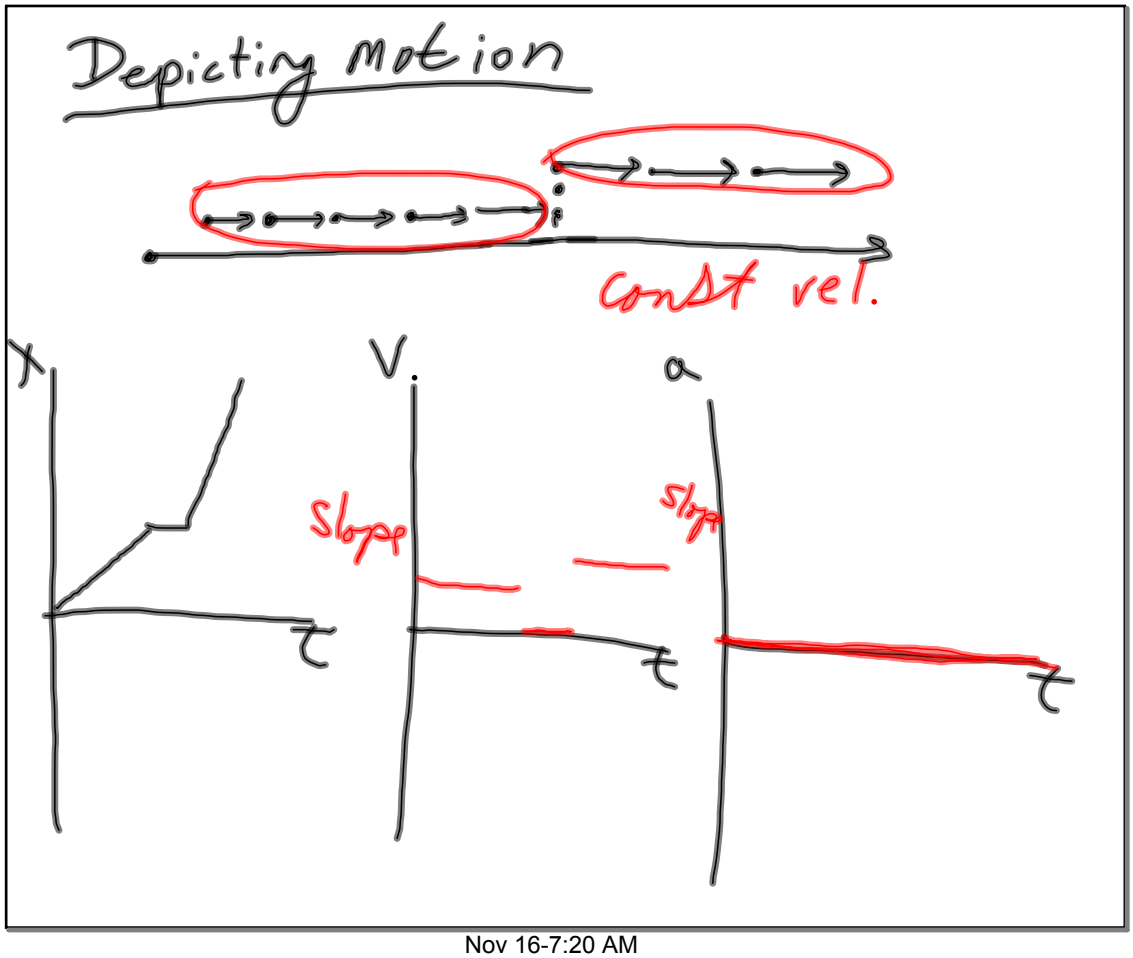
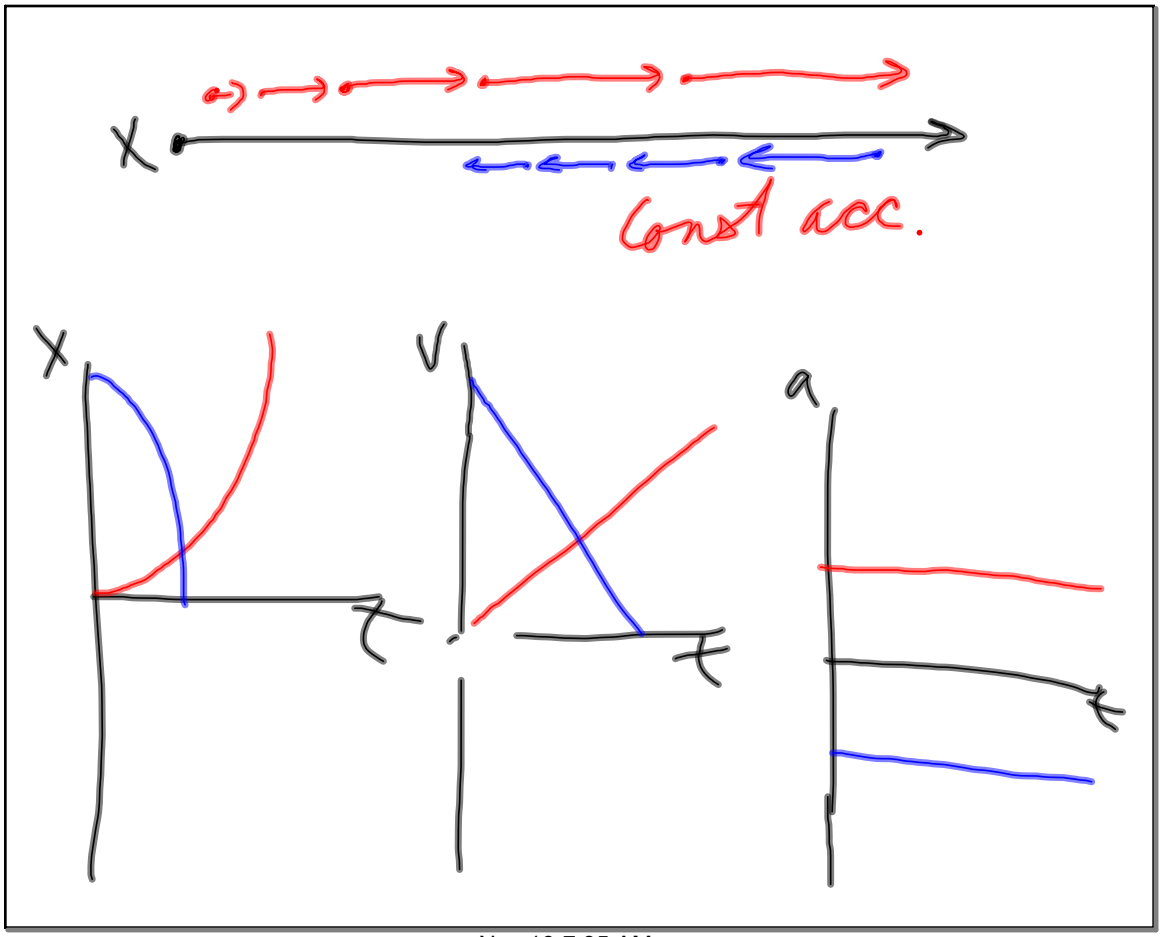
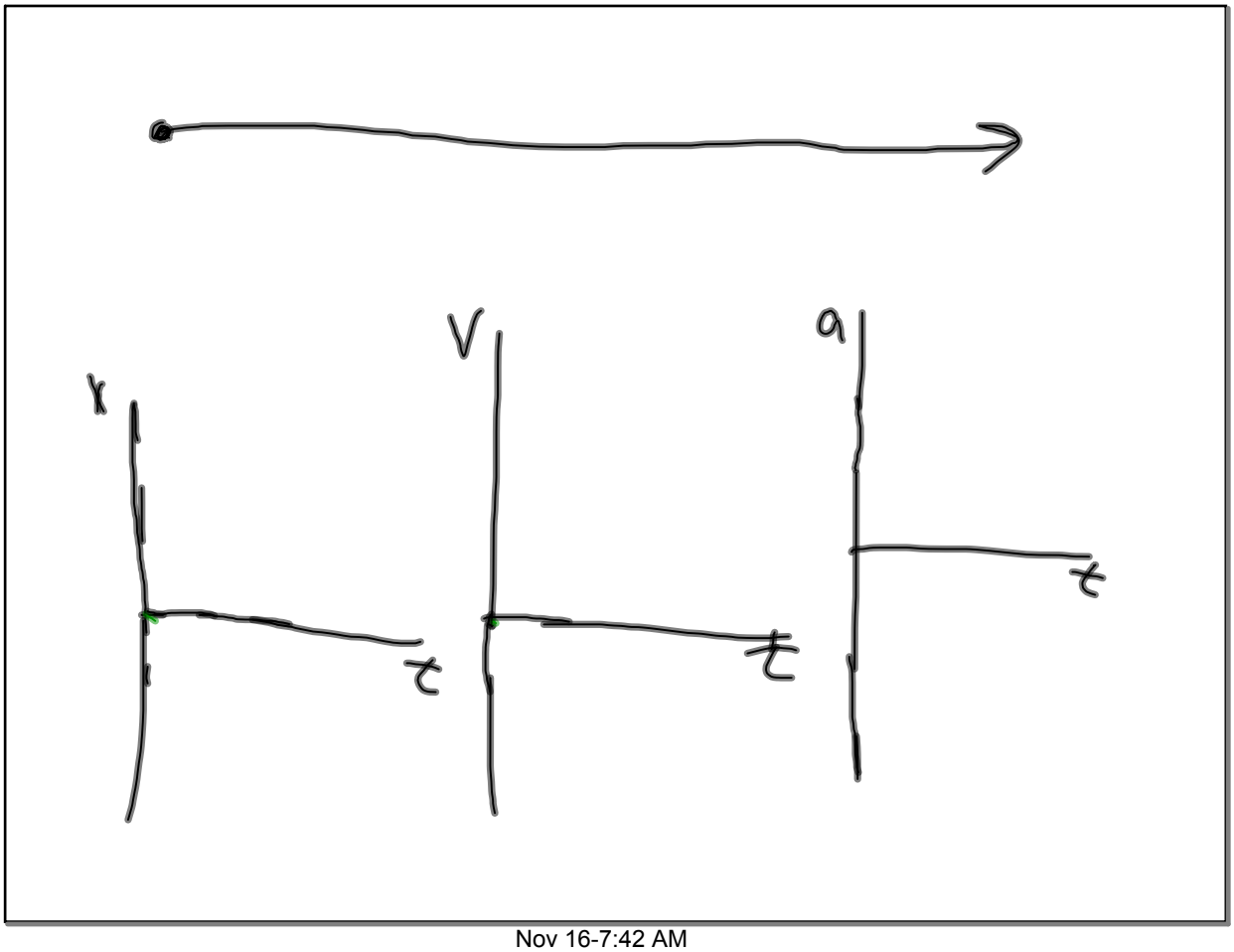


Nov 16-7:20 AM



Nov 16-7:35 AM



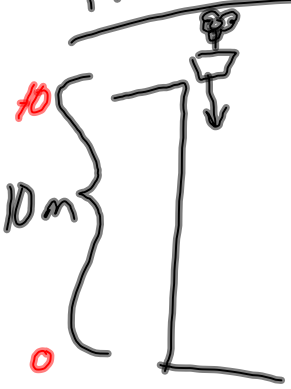
Nov 16-7:42 AM

v	a	speeding up/down or resting
+	+	speeding up
−	−	speeding up
+	−	slowing down
−	+	slowing down
0	0	rest
+	0	const. vel.
−	0	const. vel

Nov 16-7:50 AM

Free Fall - const acc.

pot drops off ledge.



$v_i = 0 \frac{m}{s}$

$a_g = -9.8 \frac{m}{s^2}$

$\Delta y = -10\ m$

$\Delta t = ?$

$v_f = X$

How long before it hits the ground?

$\Delta y = \frac{1}{2} a t^2 + v_i t$

$-10m = \frac{1}{2}(-9.8 \frac{m}{s^2}) t^2 + (0 \frac{m}{s}) t$

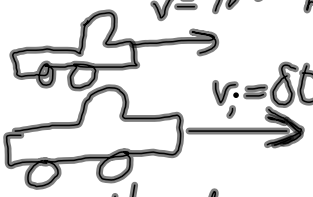
$t = \pm \sqrt{\frac{-10m}{\frac{1}{2}(-9.8 \frac{m}{s^2})}}$

$= 1.9\ s$

Nov 16-7:59 AM

Const acc + const. vel.

const rel.



$a = +100 \frac{km}{h \cdot s}$ const acc.

will the police catch them before the border which is 1.5 km away?

$v = \frac{\Delta x}{\Delta t}$

$100 \frac{km}{h} = \frac{1.5\ km}{t}$

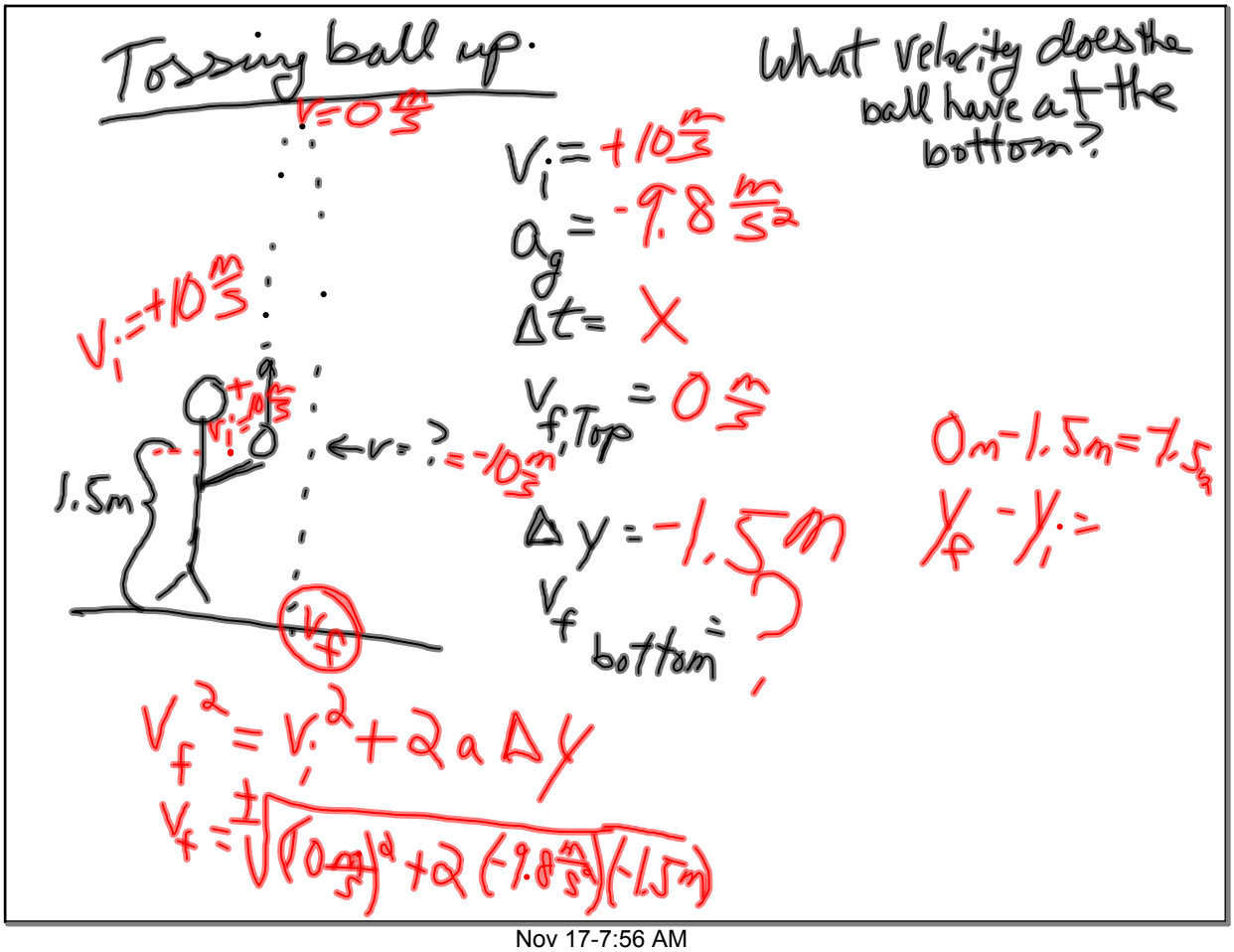
$t =$

$\Delta y = \frac{1}{2} a t^2 + v_i t$

$1.5\ km = \frac{1}{2}(100 \frac{km}{h^2})(t^2) + (80 \frac{km}{h}) t$

Quadratic :)

Nov 16-8:07 AM



Nov 17-7:56 AM

Nov 17-8:07 AM