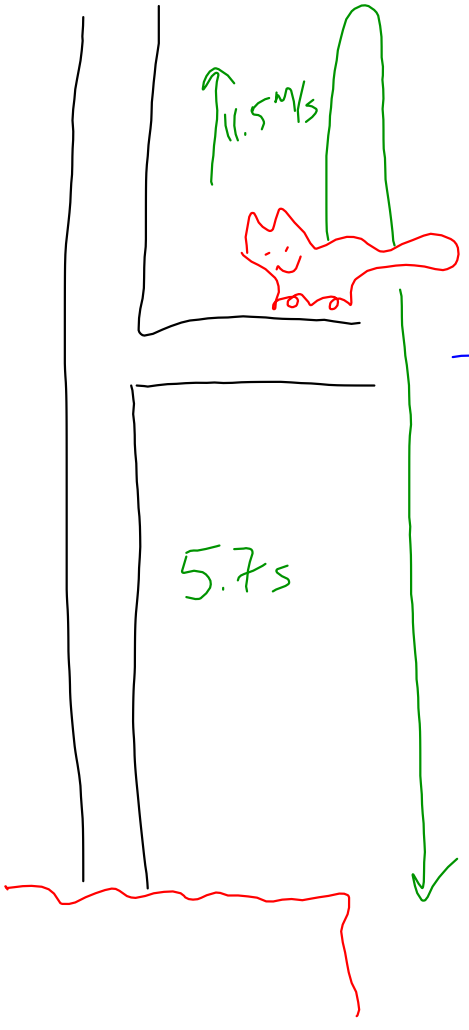
Announcements:

- Test on Tues. Nov. 1st
- Practice test on 10/25
  - Note sheet
  - Work through study guide - know how to solve quickly & correctly
  - Understand lab
- Lab
  - Change height, angle & recalculate
  - Locate hoop differently
  - Locate hoop by time
- Study guide



$a = 9.8\ m/s^2 \downarrow$

$+\uparrow$ $x = 0$

$x_0 = \emptyset$

$x =$

$v_0 = 11.5\ m/s$

$v =$

$a = -9.8\ m/s^2$

$t = 5.7\ s$

Break into parts?

1. Acceleration changes...
2. Different time periods...

x_0

x

$\Delta t = t - t_0$

3. Not enough information...

$x = \cancel{x_0}^{0} + v_0 t + \frac{1}{2} a t^2$

$x = (11.5)(5.7) + \frac{1}{2}(-9.8)5.7^2$

$x = -93.7\ m$

$v_0 = 11.5$ m/s

$a \cong -10$ m/s^2

Slow down:
velocity & acceleration
have opposite signs

↑ +

$t_0 = 11.5$ m/s
$t_1 = 1.5$ m/s
$t_2 = -8.5$ m/s
$t_3 = -18.5$ m/s