

Today H&H L2 & 3: C's open circuit @ low f (0Hz), a short @ hi f (∞ Hz)
Diodes V-I (or I-V) curves

...both non-linear devices, pp 65&7

Ignore: Labs 2-6 to 9 & 3-1&8, boxes on pp 56-7 & phase shifts
(optional: do 2-6, -8, 3-1; choose between 3-6 & 3-7)

C: must use green LC meter, no universal coding; do not short with body
RC: observe with square wave...all f s...both output shape & amp change
Breadboard: beware if rails connected to internal supplies; DO NOT DESTROY CREATIVITY

If L2 not done $\frac{1}{2}$ way through class, move to L3.
Sketchily record exercises you do in your log, including prep homework, pre-lab

Concepts:

RC time constant, "3dB" inflection point,
low-pass & hi-pass filters: "6dB/octave" fall-off in frequency domain
= = x2 in amp for x2 in f
integrator & differentiator "3dB" point in time domain
x $\sqrt{2}$ in amp with <45° phase shift, $f(f)$
...but pay a big price in V_{out}/V_{in}

Impedance matching: use low output Z to drive hi input Z , typically 1:10.

Half-wave & full-wave rectifiers...voltage clamps & voltage limiters.

Transformers: use center-tap to preserve ground at 0 v...sometimes!

C's complement: L = choke = inductor; ferrite vs. Fe hysteresis)