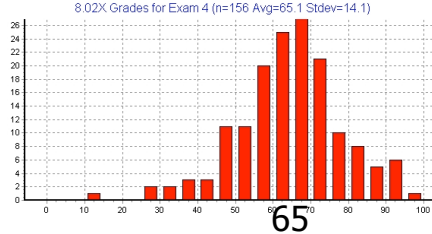
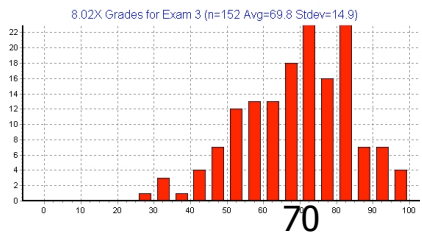
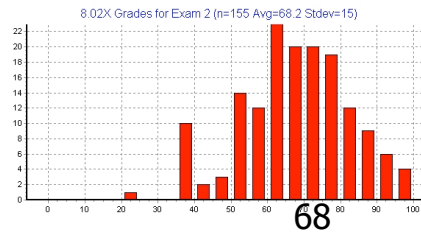
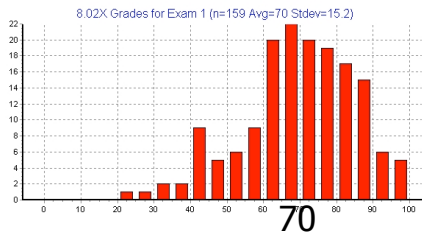


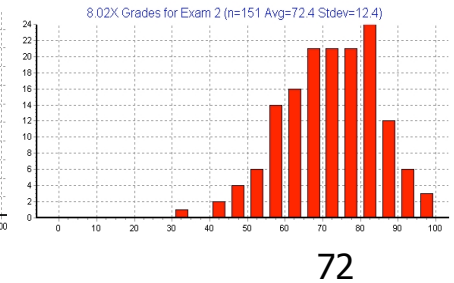
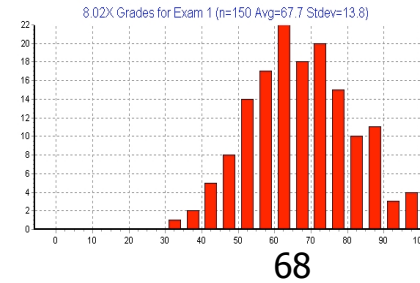
Quiz 1 2004 Quiz Grades Quiz 2



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Quiz 4

Quiz 1 2005 Quizzes Quiz 2



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Future quizzes will be more like quiz 1

FAQs

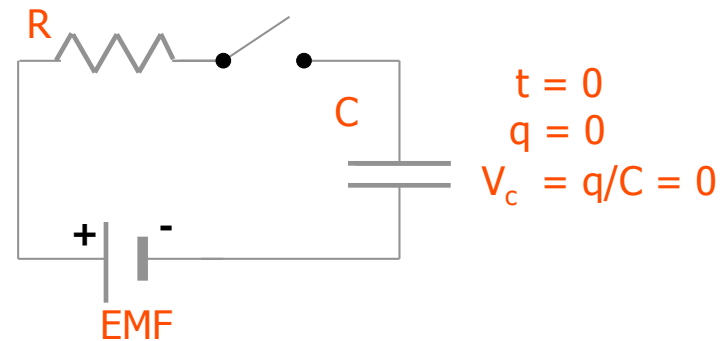
- There is **no "passing grade"** for individual quizzes
- We will sum up all points for quizzes, psets, MP, check-off.
 - Quizzes 60%, psets 20%, MP 10%, check-off 10% of final grade
- C/D boundary will be in the low 60's of possible points
- A/B ~ mid 80s, B/C mid 70s
- If your score is significantly below 60%, **act now!**

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RC Circuits

- Currents change with time
- Example: Charging a capacitor

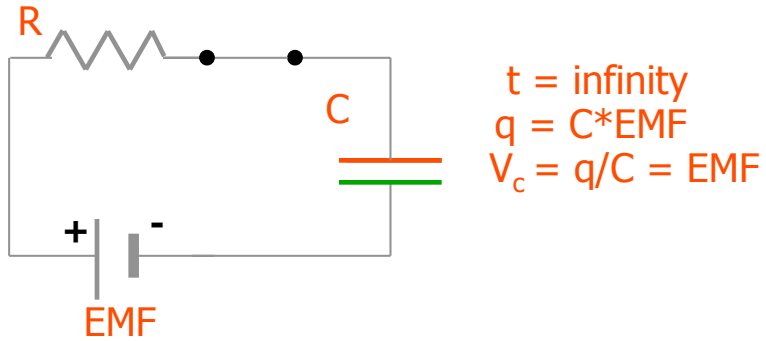


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RC Circuits

- Currents change with time
- Example: Charging a capacitor

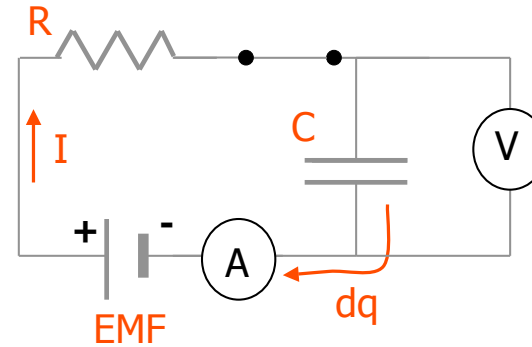


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RC Circuits

- What happens between $t=0$ and infinity?

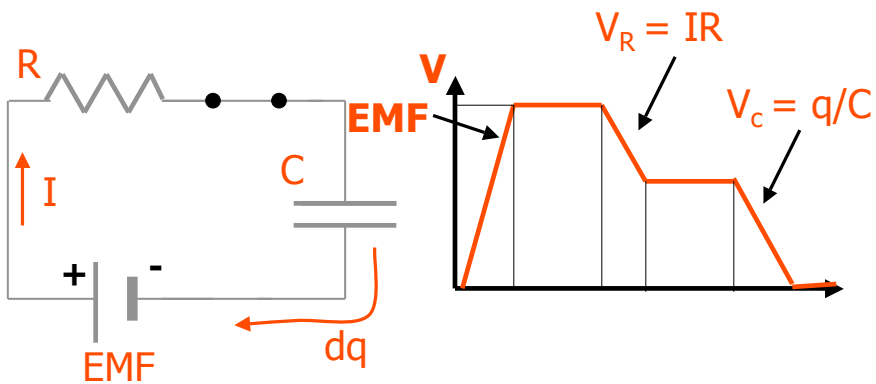


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RC Circuits

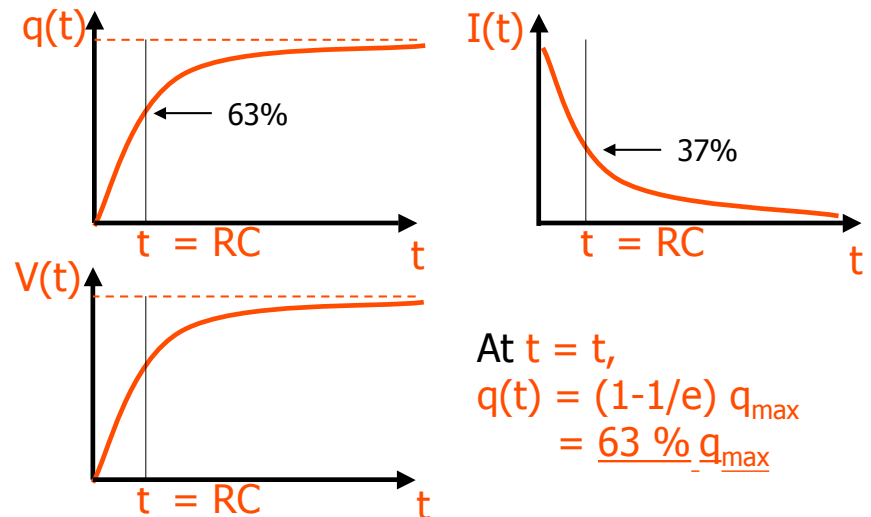
- What happens between $t=0$ and infinity?



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Charging C



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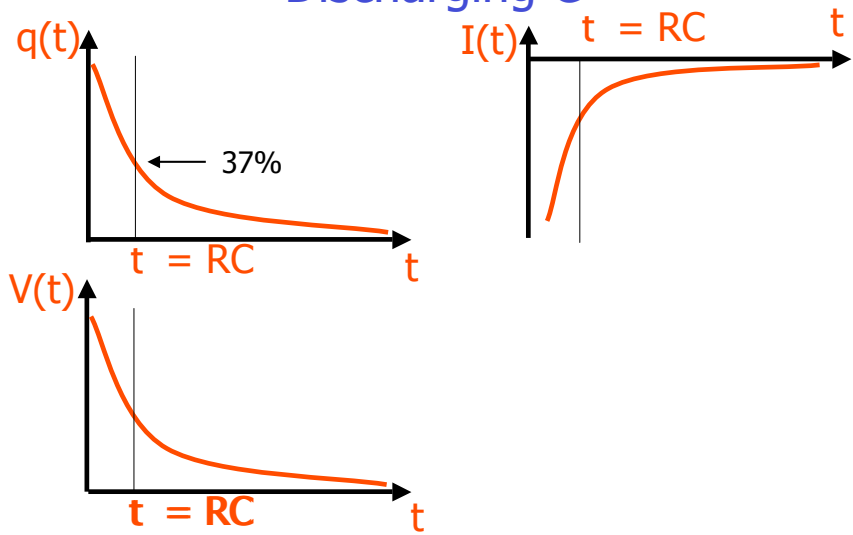
web.mit.edu/8.02x/www

At $t = t$,

$$q(t) = (1 - 1/e) q_{\text{max}}$$

$$= \underline{63\%} q_{\text{max}}$$

Discharging C

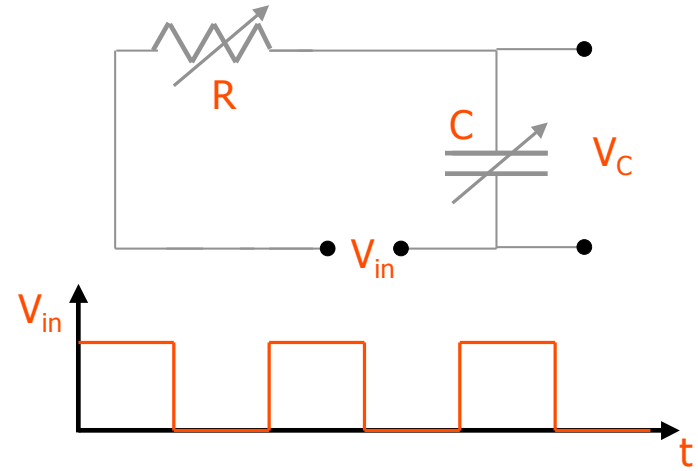


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Demo

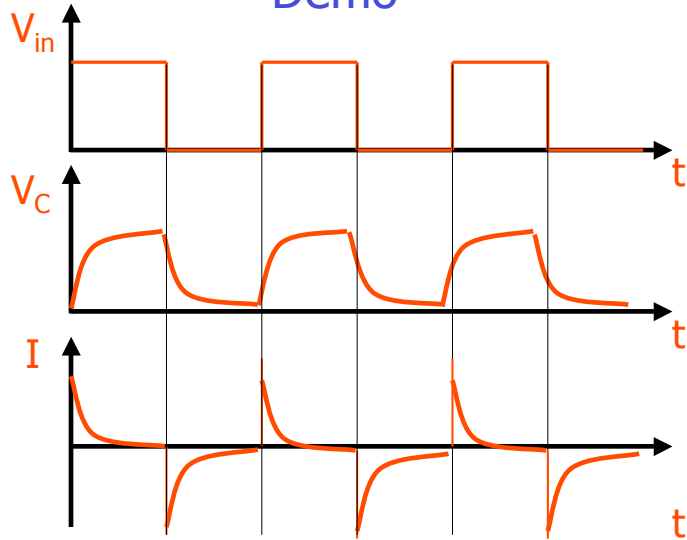
Variable time constant $t = RC$



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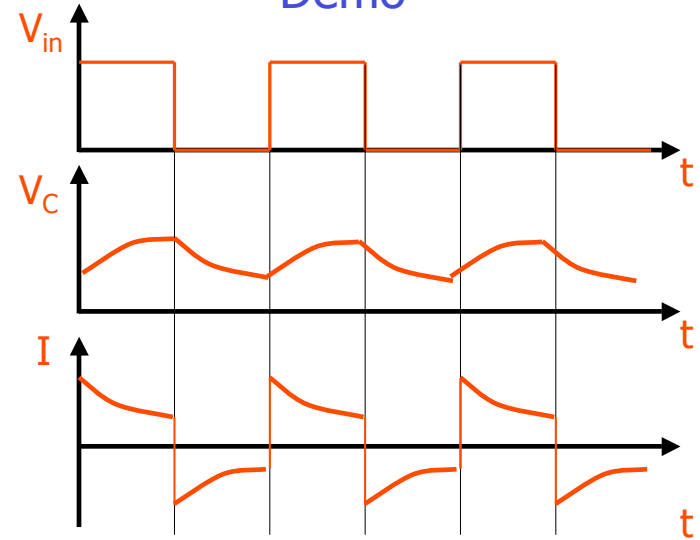
Demo



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Demo



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- Changes in **R** or **C** change **t**
- Large **t** smoothes out signals
- Sharp edges/rapid changes get removed
 - high frequencies are suppressed
- RC circuits are low-pass filters