# EECS 42 - Introduction to Electronics for Computer Science 

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## Results Midterm \#1 October 3rd, 2001

| Problem | Possible | Ave | Stdev |
| :---: | :---: | :---: | :---: |
| I | 20 | 17.8 | 3.1 |
| II | 20 | 13.6 | 4.7 |
| III | 20 | 16.1 | 4.2 |
| IV | 20 | 16.9 | 3.0 |
| V | 20 | 12.9 | 5.8 |
| Total | 100 | 77.3 | $\mathbf{1 3 . 9}$ |

Congratulations: The impressive average of 77.3 indicates good mastery of the material.

The grade scale above is approximate. It is based on a Standard Normal Distribution (SND) in which a grade of

| Approx. | Grade | Number |
| :--- | :--- | :--- |
| A+ |  |  |
| $\mathbf{A}$ | $\mathbf{9 4}$ | $\mathbf{1 7}$ (A and <br> $\mathbf{A}+$ ) |
| A- | $\mathbf{9 0}$ | $\mathbf{8}$ |
| B+ | $\mathbf{8 5}$ | $\mathbf{1 6}$ |
| B | $\mathbf{8 1}$ | $\mathbf{2 2}$ (63 of 131) |
| B- | $\mathbf{7 6}$ | $\mathbf{1 4}$ |
| C+ | $\mathbf{7 2}$ | $\mathbf{1 5}$ |
| C | $\mathbf{6 7}$ | $\mathbf{1 5}$ |
| C- | $\mathbf{6 2}$ | $\mathbf{9}$ |
| D+ | $\mathbf{5 4}$ | $\mathbf{7}$ |
| D | $\mathbf{4 6}$ | $\mathbf{5}$ |
| D- | $\mathbf{3 7}$ | $\mathbf{2}$ |
| <D- | $\mathbf{3 7}$ | $\mathbf{1}$ (131 exams) |

B- is average. The scale below 62, however, has been expanded. Also the lack of separation of $A+$ and $A$ as well as the bunching at $B$ area are also indications that the distribution deviates from a SND. The average GPA for the chart is $\mathbf{2 . 6 7}$.

Short list of common mistakes:
1.1 Signs and sign of power.
1.2 Voltage divider; resistors appear in parallel; there is current in the voltage source.
1.3 Power calculation and power ratio.
1.4 R1 and R3 divide voltage; $R 2$ and $R 3$ in series; $R 2$ and $R 3$ divide $V$.
1.5 Vtop - V side = Vs; merge R3 and R4 or include a separate node equation; output sees 4 current paths including C(dVout/dt); also need super node or node equation at ground node with 5 paths.

