

List of common mistakes

EE 201 - Fall 2013-14

- i. **Never forget to write the units.** (You may lose several points if you do not develop this practice in the forthcoming exams. You are warned! ☺)

Handwritten calculations showing current values with units:

$$i_1 = -\frac{13}{7} \underline{A}$$

$$i_3 = \frac{39}{7} - 1 = \frac{32}{7} \underline{A}$$

$$i_4 = -\frac{39}{7} + \frac{7}{2} = -\frac{29}{4} \underline{A}$$

- ii. **If you are writing an equation system, make sure that you have the unknowns on the left side and known quantities (such as external input) on the right hand side.**

Handwritten matrix equation system:

$$\begin{bmatrix} 9 & 0 & 3 & 0 \\ 0 & 5 & 0 & 5 \\ 3 & 0 & 3 & 0 \\ 0 & 5 & 0 & 9 \end{bmatrix} \begin{bmatrix} i_1 \\ i_2 \\ i_3 \\ i_4 \end{bmatrix} = \begin{bmatrix} -3 \\ V_1 - 1 \\ V_2 - 4 \\ -V_2 \end{bmatrix}$$

Annotations in red: "Do not put unknowns on RHS of an equation system!!" with arrows pointing to the terms $V_1 - 1$, $V_2 - 4$, and $-V_2$ on the right-hand side.

Other handwritten notes: $= 3i_1 + \frac{7}{2}$ and $6i_1 + 1$.

- iii. **Do not forget units of axes, arrows indicating the positive axis direction and origin indication in your plots.**

