5.6-5.9 Questions

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1 5.6, p.136

I didn't mark any questions for section 5.6.

2 5.7, p.139

Definition 5.7.1 Suppose we were dealing with variable symbols like x, y, and z, and s is one of these variables. In finding $\ulcorner s \urcorner$ would we have to rename x, y, and z as v_1, v_2, and v_3, respectively, or does this problem never arise because we would just use indexed variable symbols from the start?

Definition 5.7.1 Is there any reason in particular that the otherwise case, which I believe covers just constant symbols, gives 3?

Definition 5.7.1 I've noticed that this chapter is only applying Gödel Numbering to $\mathcal{L}_{NT}$. It seems that most of the book is applied the $\mathcal{L}_{NT}$. I could understand the authors focusing on number theory because of the results or just to have consistent examples throughout the book, but is the material applicable at all to other theories?

3 5.8, p.143

I didn't mark any questions for section 5.8.

4 5.9, p.147

p.150 *TermReplace* def. I feel as though mind is glossing over the "bars" over numbers just a little bit. Considering something like "$e_i = \overline{2^{\overline{10}}}$", I know $\overline{2} :\equiv SS0$ and $\overline{10} :\equiv SSSSSSSSSS0$. So, $\overline{2^{\overline{10}}}$ is saying something like $SS0^{SSSSSSSSSS0}$, but couldn't this be written more technically as $ESS0SSSSSSSSSS0$? It can sometimes be a bit strange working with these symbols that my mind wants to think of as regular old numbers but are actually $\mathcal{L}_{NT}$-formulas.