Exercise Sheet 8: Writing & Typesetting
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Exercise 8.1. Typeset your solution to exercise 7.1. Then rewrite and typeset the preliminaries of that paper.

Exercise 8.2. Typeset the following formulae:

$$\neg A \sqcap \exists R^-.A \sqcap (\leq 1\ R) \sqcap \forall (R^-)^+.(\exists R^-.A \sqcap (\leq 1\ R)) \tag{2.1}$$

$$\pi_x(\leq n\ R) = \exists^{\leq n} y.R(x,y) = \exists y_1,\ldots,y_n. \bigwedge_{i \neq j} y_i \neq y_j \supset \bigvee_i \neg R(x,y_i) \tag{2.2}$$

$$\mathtt{Tree} \equiv \mu X.(\mathtt{EmptyTree} \sqcup (\mathtt{Node} \sqcap \leq 1\ \mathtt{child}^- \sqcap \exists\mathtt{child}.\top \sqcap \forall\mathtt{child}.X)) \tag{2.3}$$

$$(\mu X.C)_\rho^{\mathcal{I}} = \bigcap \{\mathcal{E} \subseteq \Delta^{\mathcal{I}} \mid C_{\rho[X/\mathcal{E}]}^{\mathcal{I}} \subseteq \mathcal{E}\} \tag{2.4}$$

$$s \rightarrow_E t \text{ iff } \exists (l,r) \in E, p \in \mathcal{P}os(s), \sigma \in \mathcal{S}ub. \ s|_p = \sigma(l) \text{ and } t = s[\sigma(r)]_p \tag{2.5}$$

$$\mathbb{K}[\mathfrak{C}]_r := (G \cup \mathfrak{C}_{min}, M \cup \mathfrak{C}_{max}, I_{\mathfrak{C}} \cap (G \cup \mathfrak{C}_{min}) \times (M \cup \mathfrak{C}_{max})) \tag{2.6}$$

$$0 = \int_{\left\{s_n(u) > \frac{1}{k} + \mathbf{E}^{\mathcal{A}_n} u\right\}} \left(s_n(u) - \mathbf{E}^{\mathcal{A}_n} u\right) d\mu \geq \frac{1}{k}\mu \left(\left\{s_n(u) > \frac{1}{k} + \mathbf{E}^{\mathcal{A}_n} u\right\}\right) \tag{2.7}$$

Exercise 8.3. Use `bibtex` to typeset a bibliography of all published literature referenced on exercise sheets 0–7. Make all references as complete as possible, and strive for consistency among the references.