

-NoValue-

syn.1 Fórmulas

mvl:syn:fml:
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defn:formulas

Definição syn.1 (Formula). The set $\text{Frm}(\mathcal{L})$ of *fórmulas* of a propositional language $\mathcal{L}$ is defined inductively as follows:

1. Every *variável proposicional* p_i is an atomic *fórmula*.
2. Every 0-place connective (propositional constant) of $\mathcal{L}$ is an atomic *fórmula*.
3. If $\star$ is an n -place connective of $\mathcal{L}$, and $\varphi_1, \dots, \varphi_n$ are *fórmulas*, then $\star(\varphi_1, \dots, \varphi_n)$ is a *fórmula*.
4. Nothing else is a *fórmula*.

If $\star$ is 1-place, then $\star(\varphi_1)$ will often be written simply as $\star\varphi_1$. If $\star$ is 2-place $\star(\varphi_1, \varphi_2)$ will often be written as $(\varphi_1 \star \varphi_2)$.

As usual, we will often silently leave out the outermost parentheses.

Exemplo syn.2. In the standard language $\mathcal{L}_0$, $p_1 \rightarrow (p_1 \wedge \neg p_2)$ is a formula. In the language of product logic, it would be written instead as $p_1 \rightarrow (p_1 \odot \neg p_2)$. If we add the 1-place Δ to the language, we would also have formulas such as $\Delta(p_1 \wedge p_2) \rightarrow (\Delta p_1 \wedge \Delta p_2)$.

Créditos das Imagens

Referências Bibliográficas