

Malliteoria

Harjoitus 10

1. Suppose L is a vocabulary, T is a theory and D is a collection of types. Let P be a new unary predicate. Show that there are a theory T' in vocabulary $L \cup \{P\}$ and a collection D' of types such that if $\mathcal{A} \models T'$ and omits every type in D' , then $\mathcal{B} \upharpoonright L \models T$ and omits every type in D where \mathcal{B} is the submodel of \mathcal{A} with $\text{dom}(\mathcal{B}) = P^{\mathcal{A}}$.

2. Exercise 11.9.

3. Show that for all consistent theories T in countable vocabulary L and cardinals κ there is a model \mathcal{A} of T of power $\geq \kappa$ such that over any countable $A \subseteq \mathcal{A}$ the set $\{t(a/A) \mid a \in \mathcal{A}\}$ is countable.