Malliteoria

Harjoitus 1

1. Exercise 1.12.

2. Let $\mathcal{A} = (\mathbb{N} - \{0\}, R^{\mathcal{A}})$, where $(a, b) \in R^{\mathcal{A}}$ iff a divides b (i.e. for some $n \in \mathbb{N}$, $na = b$). Let X be the set of those $x \in \mathbb{N} - \{0\}$ for which there are a prime p and $n \in \mathbb{N}$ such that $x = p^n$. Show that X is definable without parameters in $\mathcal{A}$.

3. Exercise 1.14

4. Exercise 1.15

5. Exercise 1.18

6. Exercise 1.19