3.194 [269] We know from [26K] that the relation  $n \subseteq m$  is total in  $\mathbb{N}$ . Prove that

$$\forall n, m \in \mathbb{N}, n \in m \iff (n \subseteq m \land n \neq m)$$
 . (3.194)

By [24K] this implies

Exercises

Solution 1. [26B]

$$\forall n \ m \in \mathbb{N} \ n \in \mathbb{N} \ (n \in m \lor n - m)$$

$$\forall n, m \in \mathbb{N}, n \subseteq m \iff (n \in m \lor n = m) .$$