

t22_card_1

(TMabDr2Smmz2tfNStqKXdUDBUoz2zXttm7Z)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_card_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (k3_card_1 X0 \in k3_card_1 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (\neg(\neg X0 \in X1) \wedge ((X0 \neq X1) \wedge (\neg X1 \in X0)))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (3)$$

Theorem 1

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((k3_card_1 X0 = k3_card_1 X1) \Rightarrow (X0 = X1)))$$