

t101_card_3 (TMcR-
rLw1WGq3P8JZFiX1H3gNqvR1s9EnwNq)

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Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_card_3 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge (v4_funct_1 X0)) \Rightarrow (\forall X1. \\ (X1 \in k9_xtuple_0 (k10_card_3 X0)) \Rightarrow (k1_funct_1 (k10_card_3 X0) \\ X1 = ReplSep (toset (\lambda X2 : \iota. m1_subset_1 X2 X0)) (\lambda X2 : \iota. \\ True) (\lambda X2 : \iota. k1_funct_1 X2 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0. (v4_funct_1 X0) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 \\ X1)) \Rightarrow (\forall X2. ((X1 \in X0) \wedge (X2 \in k9_xtuple_0 (k10_card_3 X0))) \Rightarrow \\ (k1_funct_1 X1 X2 \in k1_funct_1 (k10_card_3 X0) X2))) \end{aligned}$$