

t45_modelc.3
(TMLN4i34Bz83bDWqEucdFJcfvYkiHdL7zsp)

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Let $v1_modelc.2 : \iota \Rightarrow o$ be given. Let $m2_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k23_modelc.3 : \iota \Rightarrow \iota$ be given. Let $v1_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $m1_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k22_modelc.3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_modelc.2 X0) \wedge (m2_finseq.1 X0 k5_numbers)) \Rightarrow (\\ & \forall X1.((v1_modelc.3 X1 X0) \wedge ((v3_modelc.3 X1 X0) \wedge (l1_modelc.3 \\ & \quad X1 X0))) \Rightarrow (m1_subset.1 X1 (k23_modelc.3 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset.1 X0 X1) \Rightarrow ((v1_xboole.0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq.1 X1 X0) \Leftrightarrow (m1_finseq.1 X1 X0) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0. ((v1_modelc.2 X0) \wedge (m1_finseq.1 X0 k5_numbers)) \Rightarrow (\neg v1_xboole.0 (k23_modelc.3 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_modelc.2 X0) \wedge (m2_finseq.1 X0 k5_numbers)) \Rightarrow (\\ & k23_modelc.3 X0 = \text{ReplSep } (\text{toset } (\lambda X1 : \iota. m1_subset.1 X1 (k22_modelc.3 \\ & \quad X0))) (\lambda X1 : \iota. (v1_modelc.3 X1 X0) \wedge ((v3_modelc.3 X1 X0) \wedge (\\ & \quad l1_modelc.3 X1 X0))) (\lambda X1 : \iota. X1)) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((v1_modelc_2 \ X1) \wedge (m2_finseq_1 \ X1 \ k5_numbers)) \Rightarrow \\ & ((m1_subset_1 \ X0 \ (k23_modelc_3 \ X1)) \Leftrightarrow (\exists X2. ((v1_modelc_3 \\ & X2 \ X1) \wedge ((v3_modelc_3 \ X2 \ X1) \wedge (l1_modelc_3 \ X2 \ X1))) \wedge (X2 = X0))) \end{aligned}$$