

t12_compos_0

(TMLTGX1omxNsivDwotaGyCgRAJusoayeLjm)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $v2_compos_0 : \iota \Rightarrow o$ be given. Let $v3_compos_0 : \iota \Rightarrow o$ be given. Let $v5_compos_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_compos_0 : \iota \Rightarrow \iota$ be given. Let $v4_compos_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_compos_0 X0) \wedge ((v2_compos_0 \\ X0) \wedge (v3_compos_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 X0) \Rightarrow ((\exists X3.(v7_ordinal1 X3) \wedge (k5_compos_0 \\ X0 X1 X3 = k5_compos_0 X0 X2 X3)) \Rightarrow (X1 = X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ ((v1_compos_0 X1) \wedge ((v2_compos_0 X1) \wedge (v3_compos_0 X1)))) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 X1) \Rightarrow ((v4_compos_0 X2 X1) \Rightarrow (k5_compos_0 X1 X2 X0 = \\ X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((v1_compos_0 X0) \wedge (v5_compos_0 X0)) \Rightarrow (v4_compos_0 \\ (k6_compos_0 X0) X0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X0) \wedge ((v1_compos_0 \\ X0) \wedge ((v2_compos_0 X0) \wedge (v3_compos_0 X0)))) \wedge ((m1_subset_1 X1 \\ X0) \wedge (v7_ordinal1 X2))) \Rightarrow (m1_subset_1 (k5_compos_0 X0 X1 X2) X0) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ ((v1_compos_0 X1) \wedge ((v2_compos_0 X1) \wedge ((v3_compos_0 X1) \wedge (v5_compos_0 \\ X1)))) \Rightarrow (\forall X2.(m1_subset_1 X2 X1) \Rightarrow ((k5_compos_0 X1 X2 X0 = \\ k6_compos_0 X1) \Rightarrow (X2 = k6_compos_0 X1)))) \end{aligned}$$