

t16_arytm_3 (TMKQFEgKUpWqRb- bzBtU1hTeviVCYkkaXxz7)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r2_arytm_3 X0 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow (\forall X2. (m1_subset_1 \\ X2 k4_ordinal1) \Rightarrow ((X2 = k3_arytm_3 X0 X1) \Leftrightarrow ((r2_arytm_3 X2 X0) \wedge (\\ (r2_arytm_3 X2 X1) \wedge (\forall X3. ((v3_ordinal1 X3) \wedge (v7_ordinal1 \\ X3)) \Rightarrow (((r2_arytm_3 X3 X0) \wedge (r2_arytm_3 X3 X1)) \Rightarrow (r2_arytm_3 X3 \\ X2)))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow (\forall X2. (m1_subset_1 \\ X2 k4_ordinal1) \Rightarrow ((X2 = k2_arytm_3 X0 X1) \Leftrightarrow ((r2_arytm_3 X0 X2) \wedge (\\ (r2_arytm_3 X1 X2) \wedge (\forall X3. ((v3_ordinal1 X3) \wedge (v7_ordinal1 \\ X3)) \Rightarrow (((r2_arytm_3 X0 X3) \wedge (r2_arytm_3 X1 X3)) \Rightarrow (r2_arytm_3 X2 \\ X3)))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Leftrightarrow (X0 \in k4_ordinal1) \quad (5)$$

Theorem 1

$$\forall X0. ((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((k3_arytm_3 X0 X0 = X0) \wedge (k2_arytm_3 X0 X0 = X0))$$