

l73_arytm_2 (TMTUmiFGXHJhWcT- peFDWu6RUJRwfQVJ1hNA)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k5_arytm_3 : \iota$ be given. Let $k10_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k8_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v3_ordinal1 X0) \wedge (m1_subset_1 X0 k5_arytm_3)) \Rightarrow (\\ \forall X1.((v3_ordinal1 X1) \wedge (m1_subset_1 X1 k5_arytm_3)) \Rightarrow (\\ k9_arytm_3 X0 X1 = k8_ordinal3 X0 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \wedge \\ ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1))) \Rightarrow (k8_ordinal3 X0 X1 = k10_ordinal2 \\ X0 X1) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (3)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (v3_ordinal1 X0) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 k4_ordinal1) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_arytm_3) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 k5_arytm_3) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k10_ordinal2 \\ X0 X1 = k9_arytm_3 X2 X3)))))) \end{aligned}$$