

t39_arytm_3

(TMWhQmTt9PruzjMzuVmJCec1JAsPELxVfKh)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_arytm_3 : \iota$ be given. Let $k8_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_arytm_3 : \iota \Rightarrow \iota$ be given. Let $k7_arytm_3 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_arytm_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow ((X0 \in k4_ordinal1) \Leftrightarrow (k7_arytm_3 X0 = np_1)) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow ((\neg X0 \in k4_ordinal1) \Rightarrow ((X0 = k4_tarski (k6_arytm_3 X0) (k7_arytm_3 X0)) \wedge (k7_arytm_3 X0 \neq np_1))) \quad (2)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (k7_arytm_3 X0 \neq k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_arytm_3) \Rightarrow (r1_arytm_3 (k6_arytm_3 X0) (k7_arytm_3 X0)) \quad (4)$$

Assume the following.

$$\forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((k4_arytm_3 X0 np_1 = X0) \wedge (k4_arytm_3 np_1 X0 = np_1)) \quad (5)$$

Assume the following.

$$\forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow ((r1_arytm_3 X0 X1) \Rightarrow (k4_arytm_3 X0 X1 = X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1\ X0)\wedge(v3_ordinal1\ X1))\Rightarrow((r1_arytm_3\ X0\ X1)\Rightarrow(r1_arytm_3\ X1\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_arytm_3)\Rightarrow(m1_subset_1\ (k7_arytm_3\ X0)\ k4_ordinal1) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_arytm_3)\Rightarrow(m1_subset_1\ (k6_arytm_3\ X0)\ k4_ordinal1) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_arytm_3)\Rightarrow(\forall X1.(m1_subset_1\ X1\ k4_ordinal1)\Rightarrow(((X0\in k4_ordinal1)\Rightarrow((X1=k6_arytm_3\ X0)\Leftrightarrow(X1=X0)))\wedge((\neg X0\in k4_ordinal1)\Rightarrow((X1=k6_arytm_3\ X0)\Leftrightarrow(\exists X2. ((v3_ordinal1\ X2)\wedge(v7_ordinal1\ X2))\wedge(X0=k4_tarski\ X1\ X2)))))) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Leftrightarrow(X0\in k4_ordinal1) \quad (11)$$

Assume the following.

$$\forall X0.((v3_ordinal1\ X0)\wedge(v7_ordinal1\ X0))\Rightarrow(\forall X1. ((v3_ordinal1\ X1)\wedge(v7_ordinal1\ X1))\Rightarrow(((X1=k1_xboole_0)\Rightarrow(k8_arytm_3\ X0\ X1=k1_xboole_0))\wedge(((k4_arytm_3\ X1\ X0=np_1)\Rightarrow(k8_arytm_3\ X0\ X1=k4_arytm_3\ X0\ X1))\wedge(\neg(X1\neq k1_xboole_0)\wedge((k4_arytm_3\ X1\ X0\neq np_1)\wedge(k8_arytm_3\ X0\ X1\neq k4_tarski\ (k4_arytm_3\ X0\ X1)\ (k4_arytm_3\ X1\ X0)))))) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v3_ordinal1\ X0) \quad (14)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ k5_arytm_3)\Rightarrow(k8_arytm_3\ (k6_arytm_3\ X0)\ (k7_arytm_3\ X0) = X0)$$