

t14_arytm_2

(TMW8HBgtFJtuCUYVsCenpDrDPXDU74AAmiW)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_arytm_2 : \iota$ be given. Let $k11_arytm_3 : \iota$ be given. Let $k8_arytm_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_arytm_3 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_arytm_3 : \iota$ be given. Let $k5_arytm_3 : \iota$ be given. Let $k1_arytm_2 : \iota$ be given. Let $k6_arytm_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_arytm_2 : \iota \Rightarrow \iota$ be given. Let $c3_arytm_2 : \iota$ be given. Let $k4_arytm_2 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_1 : \iota$ be given. Let $r3_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k12_arytm_3 = k1_arytm_3 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (\neg (X0 \neq k11_arytm_3) \wedge (\forall X1. (m2_subset_1 X1 (k1_zfmisc_1 \\ & k5_arytm_3) k1_arytm_2) \Rightarrow (k6_arytm_2 X0 X1 \neq k3_arytm_2 c3_arytm_2))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k2_arytm_2) \Rightarrow (k4_arytm_2 (k3_arytm_2 X0) = X0) \quad (4)$$

Assume the following.

$$\forall X0. (m2_subset_1 X0 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow (k3_arytm_2 (k4_arytm_2 X0) = X0) \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow ((k3_arytm_2 X0 = k11_arytm_3) \Leftrightarrow (X0 = k11_arytm_3)) \quad (6)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 k1_arytm_2 \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_arytm_2) \Rightarrow (m1_subset_1 (k4_arytm_2 X0) k2_arytm_2) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (m2_subset_1 (k3_arytm_2 X0) (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \quad (10)$$

Assume the following.

$$m1_subset_1 k1_arytm_2 (k1_zfmisc_1 (k1_zfmisc_1 k5_arytm_3)) \quad (11)$$

Assume the following.

$$m1_subset_1 c3_arytm_2 k2_arytm_2 \quad (12)$$

Assume the following.

$$c3_arytm_2 = k12_arytm_3 \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1.(m1_subset_1 X1 k2_arytm_2) \Rightarrow (k8_arytm_2 X0 X1 = k4_arytm_2 (k6_arytm_2 (k3_arytm_2 X0) (k3_arytm_2 X1)))) \quad (14)$$

Assume the following.

$$\begin{aligned} k5_arytm_3 = & k2_xboole_0 (k6_subset_1 (ReplSep2 (toset (\lambda X0 : \\ & \iota.m1_subset_1 X0 k4_ordinal1)) (\lambda X0 : \iota.toset (\lambda X1 : \\ & \iota.m1_subset_1 X1 k4_ordinal1)) (\lambda X0 : \iota.\lambda X1 : \iota.(r1_arytm_3 \\ & X0 X1) \wedge (X1 \neq k1_xboole_0)) (\lambda X0 : \iota.\lambda X1 : \iota.k4_tarski \\ & X0 X1)) (ReplSep (toset (\lambda X0 : \iota.m1_subset_1 X0 k4_ordinal1)) \\ & (\lambda X0 : \iota.True) (\lambda X0 : \iota.k4_tarski X0 np_1))) k4_ordinal1 \end{aligned} \quad (15)$$

Assume the following.

$$k1_arytm_3 = np_1 \quad (16)$$

Assume the following.

$$\begin{aligned}
& k1_arytm_2 = k6_subset_1 (ReplSep (toset (\lambda X0 : \iota.m1_subset_1 \\
& \quad X0 (k1_zfmisc_1 k5_arytm_3))) (\lambda X0 : \iota.\forall X1.(m1_subset_1 \\
& \quad X1 k5_arytm_3) \Rightarrow ((X1 \in X0) \Rightarrow ((\forall X2.(m1_subset_1 X2 k5_arytm_3) \Rightarrow \\
& \quad ((r3_arytm_3 X2 X1) \Rightarrow (X2 \in X0))) \wedge (\exists X2.(m1_subset_1 X2 k5_arytm_3) \wedge \\
& \quad ((X2 \in X0) \wedge (\neg r3_arytm_3 X2 X1)))))) (\lambda X0 : \iota.X0)) (k1_tarski \\
& \quad k5_arytm_3)
\end{aligned} \tag{17}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (\neg (X0 \neq k11_arytm_3) \wedge \\
& (\forall X1.(m1_subset_1 X1 k2_arytm_2) \Rightarrow (k8_arytm_2 X0 X1 \neq k12_arytm_3)))
\end{aligned}$$