

t6_arytm_2

(TMV4skhuesdZUXCXMP6nm8tUv8gmYmTbg3R)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_arytm_2 : \iota$ be given. Let $k7_arytm_2 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_arytm_3 : \iota$ be given. Let $k1_arytm_2 : \iota$ be given. Let $k5_arytm_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_arytm_3 : \iota$ be given. Let $k3_arytm_2 : \iota \Rightarrow \iota$ be given. Let $k4_arytm_2 : \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (\forall X1. (m2_subset_1 X1 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (\neg (k5_arytm_2 X0 X1 = k11_arytm_3) \wedge ((X0 \neq k11_arytm_3) \wedge (X1 \neq k11_arytm_3)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (\forall X1. (m2_subset_1 X1 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (\forall X2. (m2_subset_1 X2 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (k5_arytm_2 X0 (k5_arytm_2 X1 X2) = k5_arytm_2 (k5_arytm_2 X0 X1) \\ & X2))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \Rightarrow \\ & (k3_arytm_2 (k4_arytm_2 X0) = X0) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 k2_arytm_2) \Rightarrow ((k3_arytm_2 X0 = k11_arytm_3) \Leftrightarrow \\ & (X0 = k11_arytm_3)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 k1_arytm_2 \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k2_arytm_2) \wedge (m1_subset_1 X1 k2_arytm_2)) \Rightarrow (m1_subset_1 (k7_arytm_2 X0 X1) k2_arytm_2) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_arytm_2) \wedge (m1_subset_1 X1 k1_arytm_2)) \Rightarrow (m2_subset_1 (k5_arytm_2 X0 X1) (k1_zfmisc_1 k5_arytm_3) k1_arytm_2) \quad (9)$$

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.

$$\begin{aligned} \forall X0. (m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1. (m1_subset_1 X1 k2_arytm_2) \Rightarrow (((X1 = k11_arytm_3) \Rightarrow (k7_arytm_2 X0 X1 = X0)) \wedge \\ ((X0 = k11_arytm_3) \Rightarrow (k7_arytm_2 X0 X1 = X1)) \wedge (\neg (X1 \neq k11_arytm_3) \wedge \\ ((X0 \neq k11_arytm_3) \wedge (k7_arytm_2 X0 X1 \neq k4_arytm_2 (k5_arytm_2 \\ (k3_arytm_2 X0) (k3_arytm_2 X1))))))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k2_arytm_2) \wedge (m1_subset_1 X1 k2_arytm_2)) \Rightarrow (k7_arytm_2 X0 X1 = k7_arytm_2 X1 X0) \quad (13)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_arytm_2) \wedge (m1_subset_1 X1 k1_arytm_2)) \Rightarrow (k5_arytm_2 X0 X1 = k5_arytm_2 X1 X0) \quad (14)$$

Theorem 1

$$\forall X0. (m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1. (m1_subset_1 X1 k2_arytm_2) \Rightarrow (\forall X2. (m1_subset_1 X2 k2_arytm_2) \Rightarrow (k7_arytm_2 X0 (k7_arytm_2 X1 X2) = k7_arytm_2 (k7_arytm_2 X0 X1) X2)))$$