

t3_arytm_2 (TMF- BpQKrNNzRdcP5atPAex7NzZqGWBAhHqN)

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Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_arytm_3 : \iota$ be given. Let $k2_arytm_2 : \iota$ be given. Let $k5_arytm_3 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $r1_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \neg k4_tarski\ k11_arytm_3\ X0 \in k5_arytm_3 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1\ X0\ (k1_zfmisc_1\ X1)) \Leftrightarrow (r1_tarski\ X0\ X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1\ X0\ X1) \Rightarrow ((v1_xboole_0\ X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1\ X0\ X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0\ X0) \wedge ((\neg v1_xboole_0\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ X0)))) \Rightarrow (\forall X2. (m2_subset_1\ X2\ X0\ X1) \Leftrightarrow (m1_subset_1\ X2\ X1)) \quad (5)$$

Assume the following.

$$k11_arytm_3 = k1_xboole_0 \quad (6)$$

Assume the following.

$$\begin{aligned}
& r1_tarski\ k2_arytm_2\ (k2_xboole_0\ k5_arytm_3\ (ReplSep\ (toset \\
& \quad (\lambda X0 : \iota.m1_subset_1\ X0\ (k1_zfmisc_1\ k5_arytm_3)))\ (\lambda X0 : \\
& \quad \iota.\forall X1.(m1_subset_1\ X1\ k5_arytm_3)\Rightarrow((X1 \in X0)\Rightarrow((\forall X2. \\
& (m1_subset_1\ X2\ k5_arytm_3)\Rightarrow((r3_arytm_3\ X2\ X1)\Rightarrow(X2 \in X0))))\wedge(\\
& \quad \exists X2.(m1_subset_1\ X2\ k5_arytm_3)\wedge((X2 \in X0)\wedge(\neg r3_arytm_3 \\
& \quad \quad X2\ X1))))))\ (\lambda X0 : \iota.X0))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\neg k4_tarski\ X0\ X1 \in ReplSep\ (toset\ (\lambda X2 : \\
& \quad \iota.m1_subset_1\ X2\ (k1_zfmisc_1\ k5_arytm_3)))\ (\lambda X2 : \iota.\forall X3. \\
& (m1_subset_1\ X3\ k5_arytm_3)\Rightarrow((X3 \in X2)\Rightarrow((\forall X4.(m1_subset_1 \\
& X4\ k5_arytm_3)\Rightarrow((r3_arytm_3\ X4\ X3)\Rightarrow(X4 \in X2))))\wedge(\exists X4.(m1_subset_1 \\
& X4\ k5_arytm_3)\wedge((X4 \in X2)\wedge(\neg r3_arytm_3\ X4\ X3))))))\ (\lambda X2 : \iota. \\
& \quad X2)
\end{aligned} \tag{8}$$

Assume the following.

$$\neg v1_xboole_0\ k2_arytm_2 \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((\neg v1_xboole_0\ X1)\wedge \\
& (m1_subset_1\ X1\ (k1_zfmisc_1\ X0))))\Rightarrow(\forall X2.(m2_subset_1 \\
& \quad X2\ X0\ X1)\Rightarrow(m1_subset_1\ X2\ X0))
\end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned}
& k5_arytm_3 = k2_xboole_0\ (k6_subset_1\ (ReplSep2\ (toset\ (\lambda X0 : \\
& \quad \iota.m1_subset_1\ X0\ k4_ordinal1))\ (\lambda X0 : \iota.toset\ (\lambda X1 : \\
& \quad \iota.m1_subset_1\ X1\ k4_ordinal1))\ (\lambda X0 : \iota.\lambda X1 : \iota.(r1_arytm_3 \\
& \quad X0\ X1)\wedge(X1 \neq k1_xboole_0))\ (\lambda X0 : \iota.\lambda X1 : \iota.k4_tarski \\
& X0\ X1))\ (ReplSep\ (toset\ (\lambda X0 : \iota.m1_subset_1\ X0\ k4_ordinal1)) \\
& \quad (\lambda X0 : \iota.True)\ (\lambda X0 : \iota.k4_tarski\ X0\ np_1)))\ k4_ordinal1
\end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski\ X0\ X1 = k2_tarski\ (k2_tarski\ X0\ X1)\ (k1_tarski\ X0) \tag{12}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0\ X0\ X1)\Leftrightarrow(\forall X3. \\
& \quad (X3 \in X2)\Leftrightarrow((X3 \in X0)\vee(X3 \in X1)))
\end{aligned} \tag{13}$$

Assume the following.

$$k1_xboole_0 = the\ (\lambda X0 : \iota.v1_xboole_0\ X0) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (15)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (16)$$

Theorem 1 $\forall X0.\neg k4_tarSKI k11_arytm_3 X0 \in k2_arytm_2.$