

l7_arytm_2

(TMPiy55TmSWgceFrbj7J6Rq3yf8dXeooLdq)

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Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_arytm_2 : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $r3_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_arytm_2 : \iota$ be given. Let $k11_arytm_3 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (1)$$

Assume the following.

$$\begin{aligned} & r1_tarski (k2_xboole_0 k5_arytm_3 k1_arytm_2) (k2_xboole_0 k5_arytm_3 \\ & (ReplSep (toset (\lambda X0 : \iota. m1_subset_1 X0 (k1_zfmisc_1 k5_arytm_3))) \\ & (\lambda X0 : \iota. \forall X1. (m1_subset_1 X1 k5_arytm_3) \Rightarrow ((X1 \in X0) \Rightarrow \\ & ((\forall X2. (m1_subset_1 X2 k5_arytm_3) \Rightarrow ((r3_arytm_3 X2 X1) \Rightarrow \\ & (X2 \in X0))) \wedge (\exists X2. (m1_subset_1 X2 k5_arytm_3) \wedge ((X2 \in X0) \wedge \\ & (\neg r3_arytm_3 X2 X1)))))) (\lambda X0 : \iota. X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & k2_arytm_2 = k6_subset_1 (k2_xboole_0 k5_arytm_3 k1_arytm_2) \\ & (ReplSep (toset (\lambda X0 : \iota. m1_subset_1 X0 k5_arytm_3)) (\lambda X0 : \\ & \iota. X0 \neq k11_arytm_3) (\lambda X0 : \iota. ReplSep (toset (\lambda X1 : \iota. \\ & m1_subset_1 X1 k5_arytm_3)) (\lambda X1 : \iota. \neg r3_arytm_3 X0 X1) (\lambda X1 : \\ & \iota. X1))) \end{aligned} \quad (5)$$

Theorem 1

$r1_tarski\ k2_arytm_2\ (k2_xboole_0\ k5_arytm_3\ (ReplSep\ (toset$
 $(\lambda X0 : \iota.m1_subset_1\ X0\ (k1_zfmisc_1\ k5_arytm_3)))\ (\lambda X0 :$
 $\iota.\forall X1.(m1_subset_1\ X1\ k5_arytm_3)\Rightarrow((X1 \in X0)\Rightarrow((\forall X2.$
 $(m1_subset_1\ X2\ k5_arytm_3)\Rightarrow((r3_arytm_3\ X2\ X1)\Rightarrow(X2 \in X0))))\wedge$
 $\exists X2.(m1_subset_1\ X2\ k5_arytm_3)\wedge((X2 \in X0)\wedge(\neg r3_arytm_3$
 $X2\ X1))))))\ (\lambda X0 : \iota.X0))$