

t63_kurato_1 (TMbuCwmc- cpFhXjV5vp3L5uvUyU6tC7F2CWU)

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Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_kurato_1 : \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_topmetr : \iota$ be given. Let $k4_kurato_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k3_subset_1 X0 (k3_subset_1 X0 X1) = X1) \quad (3)$$

Assume the following.

$$(\neg v3_pre_topc k6_kurato_1 k3_topmetr) \wedge (\neg v4_pre_topc k6_kurato_1 k3_topmetr) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \wedge ((v3_pre_topc X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (v4_pre_topc (k3_subset_1 (u1_struct_0 X0) X1) X0) \quad (5)$$

Assume the following.

$$(\neg v2_struct_0 k3_topmetr) \wedge ((v1_pre_topc k3_topmetr) \wedge (v2_pre_topc k3_topmetr)) \quad (6)$$

Assume the following.

$$v1_tops_2 (k4_kurato_1 k3_topmetr k6_kurato_1) k3_topmetr \quad (7)$$

Assume the following.

$$m1_subset_1 k6_kurato_1 (k1_zfmisc_1 (u1_struct_0 k3_topmetr)) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge \\ (l1_pre_topc X0)))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ X0))))\Rightarrow(m1_subset_1 (k4_kurato_1 X0 X1) (k1_zfmisc_1 (k1_zfmisc_1 \\ (u1_struct_0 X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$(v2_pre_topc k3_topmetr)\wedge(l1_pre_topc k3_topmetr) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(X2 = k2_tarski X0 X1)\Leftrightarrow(\forall X3. \\ (X3 \in X2)\Leftrightarrow((X3 = X0)\vee(X3 = X1))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k1_zfmisc_1 (u1_struct_0 X0))))\Rightarrow((v1_tops_2 X1 X0)\Leftrightarrow(\forall X2. \\ (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))))\Rightarrow((X2 \in X1)\Rightarrow(v3_pre_topc \\ X2 X0)))))) \end{aligned} \quad (12)$$

Theorem 1

$$r1_xboole_0 (k2_tarski k6_kurato_1 (k3_subset_1 (u1_struct_0 \\ k3_topmetr) k6_kurato_1)) (k4_kurato_1 k3_topmetr k6_kurato_1)$$