

t17_e_siec (TMPokcwpKRaub- huTyvi7Xme4MU5kUDuob4a)

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Let $v2_e_siec : \iota \Rightarrow o$ be given. Let $v3_e_siec : \iota \Rightarrow o$ be given. Let $l1_e_siec : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_e_siec : \iota \Rightarrow \iota$ be given. Let $u2_e_siec : \iota \Rightarrow \iota$ be given. Let $k8_e_siec : \iota \Rightarrow \iota$ be given. Let $k7_e_siec : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_sysrel : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1_tarski X0 X1) \Rightarrow (r1_tarski (k4_xboole_0 X0 X2) (k4_xboole_0 X1 X2)) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (((k3_relat_1 \\
& X2 X2 = X2) \wedge ((k3_relat_1 X2 (k6_subset_1 X2 (k4_relat_1 (k9_xtuple_0 \\
& X2))) = k1_xboole_0) \wedge (k4_tarski X0 X1 \in X2))) \Rightarrow ((X0 = X1) \vee ((X0 \in k6_subset_1 \\
& (k9_xtuple_0 X2) (k9_xtuple_0 (k1_sysrel X2))) \wedge (X1 \in k9_xtuple_0 \\
& (k1_sysrel X2)))) \wedge (((k3_relat_1 X2 X2 = X2) \wedge ((k3_relat_1 (k6_subset_1 \\
& X2 (k4_relat_1 (k9_xtuple_0 X2))) X2 = k1_xboole_0) \wedge (k4_tarski \\
& X0 X1 \in X2))) \Rightarrow ((X0 = X1) \vee ((X1 \in k6_subset_1 (k10_xtuple_0 X2) (k9_xtuple_0 \\
& (k1_sysrel X2))) \wedge (X0 \in k9_xtuple_0 (k1_sysrel X2))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow \\
& ((r1_tarski (k9_xtuple_0 (u1_e_siec X0)) (u1_struct_0 X0)) \wedge (\\
& (r1_tarski (k10_xtuple_0 (u1_e_siec X0)) (u1_struct_0 X0)) \wedge (\\
& (r1_tarski (k9_xtuple_0 (u2_e_siec X0)) (u1_struct_0 X0)) \wedge (r1_tarski \\
& (k10_xtuple_0 (u2_e_siec X0)) (u1_struct_0 X0))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow \\
& ((k10_xtuple_0 (u1_e_siec X0) = k10_xtuple_0 (k1_sysrel (u1_e_siec \\
& X0))) \wedge ((k10_xtuple_0 (u1_e_siec X0) = k9_xtuple_0 (k1_sysrel \\
& (u1_e_siec X0))) \wedge ((k10_xtuple_0 (u2_e_siec X0) = k10_xtuple_0 \\
& (k1_sysrel (u2_e_siec X0))) \wedge ((k10_xtuple_0 (u2_e_siec X0) = k9_xtuple_0 \\
& (k1_sysrel (u2_e_siec X0))) \wedge (k10_xtuple_0 (u1_e_siec X0) = k10_xtuple_0 \\
& (u2_e_siec X0))))))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow \\
& ((k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (k9_xtuple_0 (u1_e_siec \\
& X0))) = k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) \wedge \\
& ((k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (k9_xtuple_0 (u2_e_siec \\
& X0))) = k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) \wedge \\
& ((k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (k10_xtuple_0 (u1_e_siec \\
& X0))) = k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) \wedge \\
& (k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (k10_xtuple_0 (u2_e_siec \\
& X0))) = k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (u1_struct_0 X0))))))
\end{aligned} \tag{9}$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k3_relat_1 X0 X1) \quad (11)$$

Assume the following.

$$\forall X0.((v2_e_siec X0)\wedge((v3_e_siec X0)\wedge(l1_e_siec X0)))\Rightarrow (k7_e_siec X0 = k10_xtuple_0 (u1_e_siec X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_e_siec X0)\Rightarrow((v3_e_siec X0)\Leftrightarrow((k3_relat_1 (u1_e_siec \\ X0) (k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) = \\ k1_xboole_0)\wedge(k3_relat_1 (u2_e_siec X0) (k4_xboole_0 (u2_e_siec \\ X0) (k4_relat_1 (u1_struct_0 X0))) = k1_xboole_0))) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_e_siec X0)\Rightarrow((v2_e_siec X0)\Leftrightarrow((r1_tarski (u1_e_siec \\ X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))\wedge((r1_tarski \\ (u2_e_siec X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))\wedge \\ ((k3_relat_1 (u1_e_siec X0) (u1_e_siec X0) = u1_e_siec X0)\wedge((k3_relat_1 \\ (u1_e_siec X0) (u2_e_siec X0) = u1_e_siec X0)\wedge((k3_relat_1 (u2_e_siec \\ X0) (u2_e_siec X0) = u2_e_siec X0)\wedge(k3_relat_1 (u2_e_siec X0) (\\ u1_e_siec X0) = u2_e_siec X0)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.((v2_e_siec X0)\wedge((v3_e_siec X0)\wedge(l1_e_siec X0)))\Rightarrow (k8_e_siec X0 = k4_xboole_0 (u1_struct_0 X0) (k7_e_siec X0)) \quad (15)$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v2_e_siec X2)\wedge((v3_e_siec \\ X2)\wedge(l1_e_siec X2)))\Rightarrow(\neg((k4_tarski X0 X1 \in u1_e_siec X2)\vee(k4_tarski \\ X0 X1 \in u2_e_siec X2))\wedge((X0\neq X1)\wedge(\neg(X0 \in k8_e_siec X2)\wedge(X1 \in k7_e_siec \\ X2)))) \end{aligned}$$