

t13_e_siec
(TMUg1PNdG9NnN4pQXkeyBvTGts1B1dF6dsJ)

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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 $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $u1_e_siec : \iota \Rightarrow \iota$ be given. Let $k1_sysrel : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $u2_e_siec : \iota \Rightarrow \iota$ 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 $k1_xboole_0 : \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow & (((k3_relat_1 X0 X0 = X0) \wedge (k3_relat_1 \\ X0 (k6_subset_1 X0 (k4_relat_1 (k9_xtuple_0 X0))) = k1_xboole_0)) \Rightarrow & \\ ((k9_xtuple_0 (k1_sysrel X0) = k10_xtuple_0 X0) \wedge (k10_xtuple_0 & \\ (k1_sysrel X0) = k10_xtuple_0 X0)) \wedge (((k3_relat_1 X0 X0 = X0) \wedge & (1) \\ k3_relat_1 (k6_subset_1 X0 (k4_relat_1 (k9_xtuple_0 X0))) X0 = & \\ k1_xboole_0) \Rightarrow ((k9_xtuple_0 (k1_sysrel X0) = k9_xtuple_0 X0) \wedge & \\ (k10_xtuple_0 (k1_sysrel X0) = k9_xtuple_0 X0)))) & \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow & \\ (k1_sysrel (u1_e_siec X0) = k1_sysrel (u2_e_siec X0)) & (2) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow & \\ ((k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (k9_xtuple_0 (u1_e_siec & \\ X0))) = k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) \wedge & \\ ((k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (k9_xtuple_0 (u2_e_siec & \\ X0))) = k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) \wedge & (3) \\ ((k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (k10_xtuple_0 (u1_e_siec & \\ X0))) = k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) \wedge & \\ (k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (k10_xtuple_0 (u2_e_siec & \\ X0))) = k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (u1_struct_0 X0)))))) & \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0.(l1_e_siec X0)\Rightarrow(v1_relat_1 (u1_e_siec X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k3_relat_1 X0 X1) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_e_siec X0)\Rightarrow((v3_e_siec X0)\Leftrightarrow((k3_relat_1 (u1_e_siec \\ X0) (k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) = \\ k1_xboole_0)\wedge(k3_relat_1 (u2_e_siec X0) (k4_xboole_0 (u2_e_siec \\ X0) (k4_relat_1 (u1_struct_0 X0))) = k1_xboole_0))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_e_siec X0)\Rightarrow((v2_e_siec X0)\Leftrightarrow((r1_tarski (u1_e_siec \\ X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))\wedge((r1_tarski \\ (u2_e_siec X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))\wedge \\ ((k3_relat_1 (u1_e_siec X0) (u1_e_siec X0) = u1_e_siec X0)\wedge((k3_relat_1 \\ (u1_e_siec X0) (u2_e_siec X0) = u1_e_siec X0)\wedge((k3_relat_1 (u2_e_siec \\ X0) (u2_e_siec X0) = u2_e_siec X0)\wedge(k3_relat_1 (u2_e_siec X0) (\\ u1_e_siec X0) = u2_e_siec X0)))))) \end{aligned} \quad (8)$$

Theorem 1

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