

t28_e_siec

(TMQVum2YE27UAGyNZXt5RMwiXGtGnmf31qK)

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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 $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $u2_e_siec : \iota \Rightarrow \iota$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $u1_e_siec : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$k2_relat_1 \ k1_xboole_0 = k1_xboole_0 \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 \ X0) \Rightarrow (\forall X1.(v1_relat_1 \ X1) \Rightarrow (k2_relat_1 \ (k3_relat_1 \ X0 \ X1) = k3_relat_1 \ (k2_relat_1 \ X1) \ (k2_relat_1 \ X0))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_e_siec \ X0) \wedge ((v3_e_siec \ X0) \wedge (l1_e_siec \ X0))) \Rightarrow \\ & ((k3_relat_1 \ (k4_xboole_0 \ (u2_e_siec \ X0) \ (k4_relat_1 \ (u1_struct_0 \ X0))) \ (k4_relat_1 \ (k4_xboole_0 \ (u1_struct_0 \ X0) \ (k10_xtuple_0 \ (u2_e_siec \ X0)))))) = k1_xboole_0) \wedge (k3_relat_1 \ (k4_xboole_0 \ (u1_e_siec \ X0) \ (k4_relat_1 \ (u1_struct_0 \ X0))) \ (k4_relat_1 \ (k4_xboole_0 \ (u1_struct_0 \ X0) \ (k10_xtuple_0 \ (u1_e_siec \ X0)))))) = k1_xboole_0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_e_siec \ X0) \wedge ((v3_e_siec \ X0) \wedge (l1_e_siec \ X0))) \Rightarrow \\ & (((k3_relat_1 \ (k4_relat_1 \ (k4_xboole_0 \ (u1_struct_0 \ X0) \ (k10_xtuple_0 \ (u2_e_siec \ X0)))) \ (k4_xboole_0 \ (u2_e_siec \ X0) \ (k4_relat_1 \ (u1_struct_0 \ X0)))) \wedge \\ & (k3_relat_1 \ (k4_relat_1 \ (k4_xboole_0 \ (u1_struct_0 \ X0) \ (k10_xtuple_0 \ (u1_e_siec \ X0)))) \ (k4_xboole_0 \ (u1_e_siec \ X0) \ (k4_relat_1 \ (u1_struct_0 \ X0)))) = k4_xboole_0 \ (u1_e_siec \ X0) \ (k4_relat_1 \ (u1_struct_0 \ X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.k2_relat_1 \ (k4_relat_1 \ X0) = k4_relat_1 \ X0 \quad (5)$$

Assume the following.

$$\forall X0.v1_relat_1 (k4_relat_1 X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k3_relat_1 X0 X1) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_e_siec X0)\wedge((v3_e_siec X0)\wedge(l1_e_siec X0)))\Rightarrow \\ & ((k3_relat_1 (k4_relat_1 (k4_xboole_0 (u1_struct_0 X0) (k10_xtuple_0 \\ & (u2_e_siec X0)))) (k2_relat_1 (k4_xboole_0 (u2_e_siec X0) (k4_relat_1 \\ & (u1_struct_0 X0)))) = k1_xboole_0)\wedge(k3_relat_1 (k4_relat_1 (\\ & k4_xboole_0 (u1_struct_0 X0) (k10_xtuple_0 (u1_e_siec X0)))) \\ & (k2_relat_1 (k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 \\ & X0)))) = k1_xboole_0)) \end{aligned}$$