

t2_scmpds_7

(TMX6KYvMDwfJU8kKmqMqJBhn22wZbStSdeb)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmpds_2 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k3_scmpds_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_scmpds_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\forall X2. ((\neg v1_xboole_0 \\ & X2) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 \\ & X2 (u1_compos_1 k1_scmpds_2)) \wedge ((v1_funct_1 X2) \wedge ((v1_finset_1 \\ & X2) \wedge (v1_afinsq_1 X2)))))) \Rightarrow (k3_scmpds_4 (k2_scmpds_4 X0 X2) \\ & X1 = k2_scmpds_4 X0 (k3_scmpds_4 X2 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge \\ & ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 X0 (u1_compos_1 k1_scmpds_2)) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))))) \wedge \\ & (m1_subset_1 X1 (u1_compos_1 k1_scmpds_2))) \Rightarrow ((\neg v1_xboole_0 \\ & (k3_scmpds_4 X0 X1)) \wedge ((v1_relat_1 (k3_scmpds_4 X0 X1)) \wedge ((v4_relat_1 \\ & (k3_scmpds_4 X0 X1) k5_numbers) \wedge ((v5_relat_1 (k3_scmpds_4 X0 \\ & X1) (u1_compos_1 k1_scmpds_2)) \wedge ((v1_funct_1 (k3_scmpds_4 X0 \\ & X1)) \wedge ((v1_finset_1 (k3_scmpds_4 X0 X1)) \wedge (v1_afinsq_1 (k3_scmpds_4 \\ & X0 X1)))))))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\forall X3. ((\neg v1_xboole_0 X3) \wedge \\ & ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 k5_numbers) \wedge ((v5_relat_1 X3 \\ & (u1_compos_1 k1_scmpds_2)) \wedge ((v1_funct_1 X3) \wedge ((v1_finset_1 \\ & X3) \wedge (v1_afinsq_1 X3)))))) \Rightarrow (k3_scmpds_4 (k3_scmpds_4 (k2_scmpds_4 \\ & X0 X3) X1) X2 = k2_scmpds_4 X0 (k3_scmpds_4 (k3_scmpds_4 X3 X1) X2)))))) \end{aligned}$$