

t106_scmpds_6

(TMdnSxaoPhJ6bzrogQPWyKpN4mmfDyfs9n)

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Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_scmpds_2 : \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ 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 $u1_compos_1 : \iota \Rightarrow \iota$ 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 $k6_numbers : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_scmpds_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge (v1_afinsq_1 X0)))))) \Rightarrow (k6_numbers \in k9_xtuple_0 X0) \tag{1}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmpds_2))) \wedge ((v1_int_1 X1) \wedge ((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (u1_compos_1 k1_scmpds_2)) \wedge ((v1_funct_1 X2) \wedge ((v1_finset_1 X2) \wedge (v1_afinsq_1 X2)))))))))) \Rightarrow ((\neg v1_xboole_0 (k9_scmpds_6 X0 X1 X2)) \wedge ((v1_relat_1 (k9_scmpds_6 X0 X1 X2)) \wedge ((v4_relat_1 (k9_scmpds_6 X0 X1 X2) k5_numbers) \wedge ((v5_relat_1 (k9_scmpds_6 X0 X1 X2) (u1_compos_1 k1_scmpds_2)) \wedge ((v1_funct_1 (k9_scmpds_6 X0 X1 X2)) \wedge ((v1_finset_1 (k9_scmpds_6 X0 X1 X2)) \wedge (v1_afinsq_1 (k9_scmpds_6 X0 X1 X2)))))))))) \tag{3}$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmpds_2))) \Rightarrow \\ (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge (\\ v1_relat_1 X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (\\ u1_compos_1 k1_scmpds_2)) \wedge ((v1_funct_1 X2) \wedge ((v1_finset_1 X2) \wedge \\ (v1_afinsq_1 X2)))))) \Rightarrow (k6_numbers \in k9_xtuple_0 (k9_scmpds_6 \\ X0 X1 X2)))) \end{aligned}$$