

t30_sf_mastr

(TMUHvHzg8FtmNZ86DJy43mXDZrDCTJRhhUp)

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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 $k1_scmf_sa_2 : \iota$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k2_sf_mastr : \iota \Rightarrow \iota$ be given. Let $k5_scmf_sa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sf_mastr : \iota \Rightarrow \iota$ be given. Let $k11_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_scmf_sa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_scmf_sa_2 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmf_sa_2)) \Rightarrow (k2_sf_mastr (k11_compos_1 k1_scmf_sa_2 X0) = k1_sf_mastr X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 X0 (u1_compos_1 k1_scmf_sa_2)) \wedge ((v1_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0))))))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 (u1_compos_1 k1_scmf_sa_2)) \wedge ((v1_funct_1 X1) \wedge ((\neg v1_xboole_0 X1) \wedge ((v1_finset_1 X1) \wedge (v1_afinsq_1 X1))))))) \Rightarrow (k2_sf_mastr (k3_scmf_sa6a X0 X1) = k4_subset_1 k2_scmf_sa_2 (k2_sf_mastr X0) (k2_sf_mastr X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((l1_compos_1 X0)\wedge(m1_subset_1 X1 (u1_compos_1 \\ X0)))\Rightarrow((\neg v1_xboole_0 (k11_compos_1 X0 X1))\wedge((v1_relat_1 (k11_compos_1 \\ X0 X1))\wedge((v4_relat_1 (k11_compos_1 X0 X1) k5_numbers)\wedge((v5_relat_1 \\ (k11_compos_1 X0 X1) (u1_compos_1 X0))\wedge((v1_funct_1 (k11_compos_1 \\ X0 X1))\wedge((v1_finset_1 (k11_compos_1 X0 X1))\wedge(v1_afinsq_1 (k11_compos_1 \\ X0 X1)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(l1_extpro_1 X1 X0)\Rightarrow((l1_memstr_0 X1 X0)\wedge (l1_compos_1 X1)) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow(m1_subset_1 (k2_sf_mastr X0) (k1_zfmisc_1 k2_scmfsa_2)) \quad (6)$$

Assume the following.

$$(v1_extpro_1 k1_scmfsa_2 np_3)\wedge(l1_extpro_1 k1_scmfsa_2 np_3) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((l1_compos_1 X0)\wedge(m1_subset_1 X1 (u1_compos_1 \\ X0)))\Rightarrow((v1_relat_1 (k11_compos_1 X0 X1))\wedge((v4_relat_1 (k11_compos_1 \\ X0 X1) k5_numbers)\wedge((v5_relat_1 (k11_compos_1 X0 X1) (u1_compos_1 \\ X0))\wedge((v1_funct_1 (k11_compos_1 X0 X1))\wedge(v1_finset_1 (k11_compos_1 \\ X0 X1)))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v5_relat_1 \\ X0 (u1_compos_1 k1_scmfsa_2))\wedge((\neg v1_xboole_0 X0)\wedge((v1_funct_1 \\ X0)\wedge((v1_finset_1 X0)\wedge(v1_afinsq_1 X0)))))))\Rightarrow(\forall X1.(\\ m1_subset_1 X1 (u1_compos_1 k1_scmfsa_2))\Rightarrow(k5_scmfsa6a X0 X1 = \\ k3_scmfsa6a X0 (k11_compos_1 k1_scmfsa_2 X1))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmfsa_2))\Rightarrow(\forall X1. \\ ((v1_relat_1 X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v5_relat_1 X1 \\ (u1_compos_1 k1_scmfsa_2))\wedge((v1_funct_1 X1)\wedge((\neg v1_xboole_0 \\ X1)\wedge((v1_finset_1 X1)\wedge(v1_afinsq_1 X1)))))))\Rightarrow(k2_sf_mastr \\ (k5_scmfsa6a X1 X0) = k2_xboole_0 (k2_sf_mastr X1) (k1_sf_mastr \\ X0))) \end{aligned}$$