

t19_latsubgr
(TMRVuyY5nhbvrtL5pUv21a6eVgGzZ61LL4q)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_latsubgr : \iota \Rightarrow \iota$ be given. Let $k10_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_group_3 : \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_group_2 X2 X0) \Rightarrow (u1_struct_0 (k10_group_2 X0 X1 X2) = k3_xboole_0 \\ & (u1_struct_0 X1) (u1_struct_0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v1_funct_1 (k1_latsubgr X0)) \wedge ((v1_funct_2 \\ & (k1_latsubgr X0) (k1_group_3 X0) (k9_setfam_1 (u1_struct_0 X0))) \wedge \\ & (m1_subset_1 (k1_latsubgr X0) (k1_zfmisc_1 (k2_zfmisc_1 (k1_group_3 \\ & X0) (k9_setfam_1 (u1_struct_0 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\ & X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((m1_group_2 X1 X0) \wedge \\ & (m1_group_2 X2 X0))) \Rightarrow ((v15_algstr_0 (k10_group_2 X0 X1 X2)) \wedge (\\ & m1_group_2 (k10_group_2 X0 X1 X2) X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 \\
& X1 (k1_group_3 X0) (k9_setfam_1 (u1_struct_0 X0))) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 (k1_group_3 X0) (k9_setfam_1 (u1_struct_0 \\
& X0)))))) \Rightarrow ((X1 = k1_latsubgr X0) \Leftrightarrow (\forall X2.((v15_algstr_0 \\
& X2) \wedge (m1_group_2 X2 X0)) \Rightarrow (k1_funct_1 X1 X2 = u1_struct_0 X2))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v15_algstr_0 X1) \wedge (m1_group_2 \\
& X1 X0)) \Rightarrow (\forall X2.((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)) \Rightarrow (\\
& k1_funct_1 (k1_latsubgr X0) (k10_group_2 X0 X1 X2) = k3_xboole_0 \\
& (k1_funct_1 (k1_latsubgr X0) X1) (k1_funct_1 (k1_latsubgr X0) \\
& X2))))
\end{aligned}$$