

l8_topgrp_1

(TMF4gt4eq2cvMx1S2ztd6PCesJydsB6GAem)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ &X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow (k1_group_2 X0 X1 = ReplSep (toset (\lambda X2 : \\ &\iota. m1_subset_1 X2 (u1_struct_0 X0))) (\lambda X2 : \iota. X2 \in X1) (\lambda X2 : \\ &\iota. k2_group_1 X0 X2)))) \quad (2) \end{aligned}$$

Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ &X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (r1_tarski (k1_group_2 \\ &X0 X1) (k1_group_2 X0 X2)))))) \end{aligned}$$