

l69_group_9

(TMQ3Q4hRhesntZD7pibhfXTWazn1GYBa9eg)

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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 $v3_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Rightarrow (k3_xboole_0 X0 X1 = X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (\\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (\forall X3. (m1_group_9 X3 X0 \\ & X1) \Rightarrow ((\forall X4. (m1_group_9 X4 X0 X1) \Rightarrow ((X4 = k17_group_9 X0 X1 \\ & X2 X3) \Rightarrow (u1_struct_0 X4 = k3_xboole_0 (u1_struct_0 X2) (u1_struct_0 \\ & X3)))) \wedge (\forall X4. ((v2_group_9 X4 X0) \wedge (m1_group_9 X4 X0 X1)) \Rightarrow \\ & ((u1_struct_0 X4 = k3_xboole_0 (u1_struct_0 X2) (u1_struct_0 X3)) \Rightarrow \\ & (X4 = k17_group_9 X0 X1 X2 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski (k3_xboole_0 X0 X1) X0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (\\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (\forall X3. (m1_group_9 X3 X0 \\ & X1) \Rightarrow ((r1_tarski (u1_struct_0 X2) (u1_struct_0 X3)) \Rightarrow (m1_group_9 \\ & X2 X0 X3)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow ((\neg v2_struct_0 X2) \wedge ((v2_group_1 \\ & X2) \wedge ((v3_group_1 X2) \wedge ((v3_group_9 X2 X0) \wedge (l1_group_9 X2 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X1) \wedge ((v2_group_1 \\ & X1) \wedge ((v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))))) \wedge \\ & (m1_group_9 X2 X0 X1) \Rightarrow (m1_subset_1 (k15_group_9 X0 X1 X2) (k1_zfmisc_1 \\ & (u1_struct_0 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (k15_group_9 X0 X1 X2 = u1_struct_0 \\ & X2)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (\forall X3. ((v2_group_9 X3 X0) \wedge \\ & (m1_group_9 X3 X0 X1) \Rightarrow ((m1_group_9 X3 X0 X2) \Leftrightarrow (k17_group_9 X0 X1 \\ & X3 X2 = X3)))) \end{aligned}$$