

t36_transgeo (TMVkj-
YnXG9Lq69N1yTZyS8hVjVJBAXvCQL9)

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Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v2_analoaf : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_transgeo : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_diraf : \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_transgeo : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $g1_analoaf : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_zfmisc_1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $u1_analoaf : \iota \Rightarrow \iota$ be given. Let $v1_analoaf : \iota \Rightarrow o$ be given. Let $r1_transgeo : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_diraf : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & ((\neg v1_xboole_0 X1) \wedge (\neg v1_xboole_0 X3) \wedge (((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 X1) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge ((v1_funct_1 X5) \wedge ((v1_funct_2 X5 X2 X3) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 X2 X3)))))) \Rightarrow (r1_funct_2 X0 X1 X2 X3 X4 X4)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \forall X3. \\ & (g1_analoaf X0 X1 = g1_analoaf X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. ((v7_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (v1_zfmisc_1 (u1_struct_0 X0)) \tag{3}$$

Assume the following.

$$\forall X0. ((\neg v7_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_zfmisc_1 (u1_struct_0 X0)) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow (m1_subset_1 (u1_analoaf X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow (l1_struct_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow ((v1_analoaf (k2_diraf X0)) \wedge (l1_analoaf (k2_diraf X0))) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf X0))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v3_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow ((v4_transgeo X1 X0) \Leftrightarrow (r1_transgeo (u1_struct_0 X0) X1 (k1_diraf (u1_struct_0 X0) (u1_analoaf X0)))))) \quad (9) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v3_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow ((r3_transgeo X0 X1) \Leftrightarrow (r1_transgeo (u1_struct_0 X0) X1 (u1_analoaf X0)))))) \quad (10) \end{aligned}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (k2_diraf X0 = g1_analoaf (u1_struct_0 X0) (k1_diraf (u1_struct_0 X0) (u1_analoaf X0))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((\neg v7_struct_0 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow ((v1_analoaf X0) \Rightarrow (X0 = g1_analoaf (u1_struct_0 X0) (u1_analoaf X0))) \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (u1_struct_0 \\ & X0) (u1_struct_0 X0)) \wedge ((v3_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 \\ & X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0)))))) \Rightarrow (\neg (v4_transgeo X1 X0) \wedge (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 (k2_diraf X0)) \\ & (u1_struct_0 (k2_diraf X0))) \wedge ((v3_funct_2 X2 (u1_struct_0 (k2_diraf \\ & X0)) (u1_struct_0 (k2_diraf X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 (k2_diraf X0)) (u1_struct_0 (k2_diraf \\ & X0)))))) \Rightarrow (\neg (r1_funct_2 (u1_struct_0 X0) (u1_struct_0 X0) (\\ & u1_struct_0 (k2_diraf X0)) (u1_struct_0 (k2_diraf X0)) X1 X2) \wedge \\ & (r3_transgeo (k2_diraf X0) X2)))))) \end{aligned}$$