

t38_diraf

(TMWVStSSJzrHiF4TQxjJ7sKMFvcaYG46f)

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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 $v2_struct_0 : \iota \Rightarrow o$ be given. Let $k2_diraf : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_analoaf : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $u1_analoaf : \iota \Rightarrow \iota$ be given. Let $v1_analoaf : \iota \Rightarrow o$ be given. Let $k1_diraf : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \forall X3. \\ & (g1_analoaf X0 X1 = g1_analoaf X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_analoaf X0) \Rightarrow (m1_subset_1 (u1_analoaf X0) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (l1_analoaf X0) \Rightarrow (l1_struct_0 X0) \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow ((v1_analoaf (k2_diraf X0)) \wedge (l1_analoaf (k2_diraf X0))) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow ((r2_diraf X0 X1 \\ X2 X3 X4) \Leftrightarrow ((r2_analoaf X0 X1 X2 X3 X4) \vee (r2_analoaf X0 X1 X2 X4 X3))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (k2_diraf X0 = \\ g1_analoaf (u1_struct_0 X0) (k1_diraf (u1_struct_0 X0) (u1_analoaf \\ X0))) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow ((r2_analoaf X0 \\ X1 X2 X3 X4) \Leftrightarrow (k1_domain_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\ X0)) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (k1_domain_1 \\ (u1_struct_0 X0) (u1_struct_0 X0) X1 X2) (k1_domain_1 (u1_struct_0 \\ X0) (u1_struct_0 X0) X3 X4) \in u1_analoaf X0))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\ (k2_zfmisc_1 X0 X0)))) \Rightarrow ((X2 = k1_diraf X0 X1) \Leftrightarrow (\forall X3.(m1_subset_1 \\ X3 X0) \Rightarrow (\forall X4.(m1_subset_1 X4 X0) \Rightarrow (\forall X5.(m1_subset_1 \\ X5 X0) \Rightarrow (\forall X6.(m1_subset_1 X6 X0) \Rightarrow ((k1_domain_1 (k2_zfmisc_1 \\ X0 X0) (k2_zfmisc_1 X0 X0) (k1_domain_1 X0 X0 X3 X4) (k1_domain_1 \\ X0 X0 X5 X6) \in X2) \Leftrightarrow ((k1_domain_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 \\ X0 X0) (k1_domain_1 X0 X0 X3 X4) (k1_domain_1 X0 X0 X5 X6) \in X1) \vee (k1_domain_1 \\ (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0) (k1_domain_1 X0 X0 X3 X4) \\ (k1_domain_1 X0 X0 X6 X5) \in X1))))))))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v2_struct_0 X0) \Rightarrow (v7_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow ((v1_analoaf X0) \Rightarrow (X0 = g1_analoaf \\ (u1_struct_0 X0) (u1_analoaf X0))) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge (l1_analoaf X1)) \Rightarrow ((X1 = \\ & k2_diraf X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\\ & \forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 \\ & X4 (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X1)) \Rightarrow (\forall X7. \\ & (m1_subset_1 X7 (u1_struct_0 X1)) \Rightarrow (\forall X8.(m1_subset_1 X8 \\ & (u1_struct_0 X1)) \Rightarrow (\forall X9.(m1_subset_1 X9 (u1_struct_0 X1)) \Rightarrow \\ & (((X2 = X6) \wedge ((X3 = X7) \wedge ((X4 = X8) \wedge (X5 = X9)))) \Rightarrow ((r2_analoaf X1 X6 \\ & X7 X8 X9) \Leftrightarrow (r2_diraf X0 X2 X3 X4 X5)))))))))) \end{aligned}$$