

t18_diraf (TML- GtKRm2iTMYLfJcPN2LDAwTShG3Us8i3u)

October 27, 2020

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

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow (m1_subset_1 (u1_analoaf X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \quad (2)$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow (l1_struct_0 X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0)))))) \Rightarrow (m1_subset_1 (k1_diraf X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow ((r2_diraf X0 X1 X2 X3 X4) \Leftrightarrow ((r2_analoaf X0 X1 X2 X3 X4) \vee (r2_analoaf X0 X1 X2 X4 X3))))))) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow ((r2_analoaf X0 \\
& X1 X2 X3 X4) \Leftrightarrow (k1_domain_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& X0)) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (k1_domain_1 \\
& (u1_struct_0 X0) (u1_struct_0 X0) X1 X2) (k1_domain_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0) X3 X4) \in u1_analoaf X0))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) \\
& (k2_zfmisc_1 X0 X0)))) \Rightarrow ((X2 = k1_diraf X0 X1) \Leftrightarrow (\forall X3.(m1_subset_1 \\
& X3 X0) \Rightarrow (\forall X4.(m1_subset_1 X4 X0) \Rightarrow (\forall X5.(m1_subset_1 \\
& X5 X0) \Rightarrow (\forall X6.(m1_subset_1 X6 X0) \Rightarrow ((k1_domain_1 (k2_zfmisc_1 \\
& X0 X0) (k2_zfmisc_1 X0 X0) (k1_domain_1 X0 X0 X3 X4) (k1_domain_1 \\
& X0 X0 X5 X6) \in X2) \Leftrightarrow ((k1_domain_1 (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 \\
& X0 X0) (k1_domain_1 X0 X0 X3 X4) (k1_domain_1 X0 X0 X5 X6) \in X1) \vee (k1_domain_1 \\
& (k2_zfmisc_1 X0 X0) (k2_zfmisc_1 X0 X0) (k1_domain_1 X0 X0 X3 X4) \\
& (k1_domain_1 X0 X0 X6 X5) \in X1))))))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v2_struct_0 X0) \Rightarrow (v7_struct_0 X0)) \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\
& X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& ((r2_diraf X0 X1 X2 X3 X4) \Leftrightarrow (k1_domain_1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0)) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& X0)) (k1_domain_1 (u1_struct_0 X0) (u1_struct_0 X0) X1 X2) (k1_domain_1 \\
& (u1_struct_0 X0) (u1_struct_0 X0) X3 X4) \in k1_diraf (u1_struct_0 \\
& X0) (u1_analoaf X0))))))
\end{aligned}$$