

t8_homothet
(TMJnfcdkguAHrGgo6tubhAeD22FS5PDF4vP)

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Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v1_diraf : \iota \Rightarrow o$ be given. Let $v2_diraf : \iota \Rightarrow o$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r2_aff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_aff_2 : \iota \Rightarrow o$ 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 $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_homothet : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge ((v2_diraf X0) \wedge \\
& (l1_analoaf X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X4. \\
& ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 \\
& X0)) \wedge ((v3_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow \\
& (((r2_aff_1 X0 X1 X2 X3) \wedge (\forall X5. (m1_subset_1 X5 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X6. (m1_subset_1 X6 (u1_struct_0 X0)) \Rightarrow ((k3_funct_2 \\
& (u1_struct_0 X0) (u1_struct_0 X0) X4 X5 = X6) \Leftrightarrow (((X5 \in X3) \wedge (X5 = X6)) \vee \\
& ((\neg X5 \in X3) \wedge (\exists X7. (m1_subset_1 X7 (u1_struct_0 X0)) \wedge (\exists X8. \\
& (m1_subset_1 X8 (u1_struct_0 X0)) \wedge ((X7 \in X3) \wedge ((X8 \in X3) \wedge ((r2_analoaf \\
& X0 X7 X1 X8 X5) \wedge ((r2_analoaf X0 X7 X2 X8 X6) \wedge (r2_aff_1 X0 X5 X6 X3)))))))))) \Rightarrow \\
& ((X1 \in X3) \vee (r1_homothet X0 X4 X3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge ((v2_diraf X0) \wedge \\
& \quad (l1_analoaf X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\
& \quad ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 \\
& \quad X0)) \wedge ((v3_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& \quad X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow \\
& \quad (((r2_aff_1 X0 X1 X2 X3) \wedge (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X0)) \Rightarrow ((k3_funct_2 \\
& \quad (u1_struct_0 X0) (u1_struct_0 X0) X4 X5 = X6) \Leftrightarrow (((X5 \in X3) \wedge (X5 = X6)) \vee \\
& \quad ((\neg X5 \in X3) \wedge (\exists X7.(m1_subset_1 X7 (u1_struct_0 X0)) \wedge (\exists X8. \\
& \quad (m1_subset_1 X8 (u1_struct_0 X0)) \wedge ((X7 \in X3) \wedge ((X8 \in X3) \wedge ((r2_analoaf \\
& \quad X0 X7 X1 X8 X5) \wedge ((r2_analoaf X0 X7 X2 X8 X6) \wedge (r2_aff_1 X0 X5 X6 X3)))))))))) \Rightarrow \\
& \quad ((X1 \in X3) \vee (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X0) X4 X1 = \\
& \quad X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge ((v2_diraf X0) \wedge \\
& \quad (l1_analoaf X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)) \Rightarrow (\neg(r2_aff_1 \\
& \quad X0 X1 X2 X3) \wedge ((\neg X1 \in X3) \wedge ((v7_aff_2 X0) \wedge (\forall X4.((v1_funct_1 \\
& \quad X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v3_funct_2 \\
& \quad X4 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow (\neg \forall X5. \\
& \quad (m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 X6 \\
& \quad (u1_struct_0 X0)) \Rightarrow ((k3_funct_2 (u1_struct_0 X0) (u1_struct_0 \\
& \quad X0) X4 X5 = X6) \Leftrightarrow (((X5 \in X3) \wedge (X5 = X6)) \vee ((\neg X5 \in X3) \wedge (\exists X7.(m1_subset_1 \\
& \quad X7 (u1_struct_0 X0)) \wedge (\exists X8.(m1_subset_1 X8 (u1_struct_0 \\
& \quad X0)) \wedge ((X7 \in X3) \wedge ((X8 \in X3) \wedge ((r2_analoaf X0 X7 X1 X8 X5) \wedge ((r2_analoaf \\
& \quad X0 X7 X2 X8 X6) \wedge (r2_aff_1 X0 X5 X6 X3))))))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge ((v2_diraf X0) \wedge \\
& \quad (l1_analoaf X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)) \Rightarrow (\neg(r2_aff_1 \\
& \quad X0 X1 X2 X3) \wedge ((\neg X1 \in X3) \wedge ((v7_aff_2 X0) \wedge (\forall X4.((v1_funct_1 \\
& \quad X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v3_funct_2 \\
& \quad X4 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow (\neg(r1_homothet \\
& \quad X0 X4 X3) \wedge (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X0) X4 X1 = X2))))))
\end{aligned}$$