

l33_homothet

(TMPd8cZSXbuTrN28J5pK3N5msv1qcrqPRoE)

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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 $v1_funct_1 : \iota \Rightarrow o$ 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 $r2_aff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\ & (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow ((r2_analoaf X0 X1 X2 X2 X1) \wedge (r2_analoaf X0 \\ & X1 X2 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

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

Theorem 1

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