

t38_instalg1

(TMbn6QjMWPDVUs4srF8oc9HNNmUQ9BC4okR)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v4_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r3_pua2mss1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_instal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_msualg_6 : \iota \Rightarrow \iota$ be given. Let $m2_msualg_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\
& \quad X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((\neg v11_struct_0 X1) \wedge (\\
& \quad l1_msualg_1 X1))) \Rightarrow (\forall X2.((v4_msualg_1 X2 X0) \wedge (l3_msualg_1 \\
& \quad X2 X0)) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 \\
& \quad X1) (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\
& \quad (u1_struct_0 X1) (u1_struct_0 X0)))))) \Rightarrow (\forall X4.((v1_relat_1 \\
& \quad X4) \wedge (v1_funct_1 X4)) \Rightarrow ((r3_pua2mss1 X1 X0 X3 X4) \Rightarrow (\forall X5.(\\
& \quad (v4_msualg_1 X5 X1) \wedge (l3_msualg_1 X5 X1)) \Rightarrow ((X5 = k1_instal1 X1 \\
& \quad X0 X2 X3 X4) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X1)) \Rightarrow (\forall X7. \\
& \quad (m1_subset_1 X7 (u1_struct_0 X1)) \Rightarrow ((r1_rewrite1 (k3_msualg_6 \\
& \quad X1) X6 X7) \Rightarrow ((r1_rewrite1 (k3_msualg_6 X0) (k3_funct_2 (u1_struct_0 \\
& \quad X1) (u1_struct_0 X0) X3 X6) (k3_funct_2 (u1_struct_0 X1) (u1_struct_0 \\
& \quad X0) X3 X7)) \wedge (\forall X8.(m2_msualg_6 X8 X1 X5 X6 X7) \Rightarrow (m2_msualg_6 \\
& \quad X8 X0 X2 (k3_funct_2 (u1_struct_0 X1) (u1_struct_0 X0) X3 X6) (k3_funct_2 \\
& \quad (u1_struct_0 X1) (u1_struct_0 X0) X3 X7)))))))))))))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\ & \quad X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((\neg v11_struct_0 X1) \wedge (\\ & \quad l1_msualg_1 X1))) \Rightarrow (\forall X2.((v4_msualg_1 X2 X0) \wedge (l3_msualg_1 \\ & \quad X2 X0)) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 \\ & \quad X1) (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (u1_struct_0 X1) (u1_struct_0 X0)))))) \Rightarrow (\forall X4.((v1_relat_1 \\ & \quad X4) \wedge (v1_funct_1 X4)) \Rightarrow ((r3_pua2mss1 X1 X0 X3 X4) \Rightarrow (\forall X5.(\\ & \quad (v4_msualg_1 X5 X1) \wedge (l3_msualg_1 X5 X1)) \Rightarrow ((X5 = k1_instalg1 X1 \\ & \quad X0 X2 X3 X4) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X1)) \Rightarrow (\forall X7. \\ & \quad (m1_subset_1 X7 (u1_struct_0 X1)) \Rightarrow ((r1_rewrite1 (k3_msualg_6 \\ & \quad X1) X6 X7) \Rightarrow (\forall X8.(m2_msualg_6 X8 X1 X5 X6 X7) \Rightarrow (m2_msualg_6 \\ & \quad X8 X0 X2 (k3_funct_2 (u1_struct_0 X1) (u1_struct_0 X0) X3 X6) (k3_funct_2 \\ & \quad (u1_struct_0 X1) (u1_struct_0 X0) X3 X7))))))))))))) \end{aligned}$$