

t18_instalg1
(TMVRg17R3o3cGmVm1dSbT93fTSJaq9kKiBH)

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Let $v1_instal\!g_1 : \iota \Rightarrow o$ be given. Let $l1_msual\!g_1 : \iota \Rightarrow o$ be given. Let $m1_instal\!g_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r3_pua2mss1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k5_relat_1 X1 X0 = k3_relat_1 (k4_relat_1 X0) X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_msual\!g_1 X0) \Rightarrow (\forall X1. (l1_msual\!g_1 X1) \Rightarrow (\forall X2. \\ & (l1_msual\!g_1 X2) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow \\ & (\forall X4. ((v1_relat_1 X4) \wedge (v1_funct_1 X4)) \Rightarrow (\forall X5. (\\ & (v1_relat_1 X5) \wedge (v1_funct_1 X5)) \Rightarrow (\forall X6. ((v1_relat_1 X6) \wedge \\ & (v1_funct_1 X6)) \Rightarrow (((r3_pua2mss1 X0 X1 X3 X5) \wedge (r3_pua2mss1 X1 X2 \\ & X4 X6)) \Rightarrow (r3_pua2mss1 X0 X2 (k3_relat_1 X3 X4) (k3_relat_1 X5 X6)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. k6_partfun1 X0 = k4_relat_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1 (k4_relat_1 X0)) \wedge (v1_funct_1 (k4_relat_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. ((v1_instal\!g_1 X0) \wedge (l1_msual\!g_1 X0)) \Rightarrow (\forall X1. (m1_instal\!g_1 X1 X0) \Rightarrow (l1_msual\!g_1 X1)) \quad (5)$$

Assume the following.

$$\forall X0. v1_relat_1 (k4_relat_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_instalg1\ X0)\wedge(l1_msualg_1\ X0))\Rightarrow(\forall X1. \\ & (l1_msualg_1\ X1)\Rightarrow((m1_instalg1\ X1\ X0)\Leftrightarrow(r3_pua2mss1\ X1\ X0\ (k6_partfun1 \\ & (u1_struct_0\ X1))\ (k6_partfun1\ (u4_struct_0\ X1)))))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_instalg1\ X0)\wedge(l1_msualg_1\ X0))\Rightarrow(\forall X1. \\ & (m1_instalg1\ X1\ X0)\Rightarrow(\forall X2.(l1_msualg_1\ X2)\Rightarrow(\forall X3. \\ & ((v1_relat_1\ X3)\wedge(v1_funct_1\ X3))\Rightarrow(\forall X4.((v1_relat_1 \\ & X4)\wedge(v1_funct_1\ X4))\Rightarrow((r3_pua2mss1\ X0\ X2\ X3\ X4)\Rightarrow(r3_pua2mss1 \\ & X1\ X2\ (k5_relat_1\ X3\ (u1_struct_0\ X1))\ (k5_relat_1\ X4\ (u4_struct_0 \\ & X1)))))))))) \end{aligned}$$