

t63_algspec1 (TMQcFzGxPA- JWF92QjrkMkVqPbWB8SnAhZtq)

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Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v1_instal_g1 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v4_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_msafree1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m4_algspec1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_algspec1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_msualg_1 : \iota \Rightarrow \iota$ be given. Let $u2_msualg_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_instal_g1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k3_finseq_2 : \iota \Rightarrow \iota$ 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 $m3_algspec1 : \iota \Rightarrow o$ be given. Let $v1_msualg_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v11_struct_0 X0) \wedge ((v1_instal_g1 X0) \wedge (l1_msualg_1 \\ & X0))) \Rightarrow (\forall X1.((\neg v11_struct_0 X1) \wedge ((v1_instal_g1 X1) \wedge (l1_msualg_1 \\ & X1))) \Rightarrow (\forall X2.((v4_msualg_1 X2 X0) \wedge ((v1_msafree1 X2 X0) \wedge \\ & (l3_msualg_1 X2 X0))) \Rightarrow ((l3_msualg_1 X2 X1) \Rightarrow (g1_msualg_1 (u1_struct_0 \\ & X0) (u4_struct_0 X0) (u1_msualg_1 X0) (u2_msualg_1 X0) = g1_msualg_1 \\ & (u1_struct_0 X1) (u4_struct_0 X1) (u1_msualg_1 X1) (u2_msualg_1 \\ & X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_instal_g1 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_instal_g1 X1) \wedge (l1_msualg_1 X1)) \Rightarrow (((r1_tarski (u1_struct_0 \\ & X1) (u1_struct_0 X0)) \wedge ((r1_tarski (u1_msualg_1 X1) (u1_msualg_1 \\ & X0)) \wedge (r1_tarski (u2_msualg_1 X1) (u2_msualg_1 X0)))) \Rightarrow (m1_instal_g1 \\ & X1 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_instal_g1 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & (m1_instal_g1 X1 X0) \Rightarrow ((r1_tarski (u2_msualg_1 X1) (u2_msualg_1 \\ & X0)) \wedge (r1_tarski (u1_msualg_1 X1) (u1_msualg_1 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_instal\!g_1 X0) \wedge (l1_msual\!g_1 X0)) \Rightarrow (\forall X1. \\ & (m1_instal\!g_1 X1 X0) \Rightarrow ((r1_tarski (u1_struct_0 X1) (u1_struct_0 \\ & X0)) \wedge (r1_tarski (u4_struct_0 X1) (u4_struct_0 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 X1 (k3_finseq_2 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X1 (k3_finseq_2 X0)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 \\ & X3 X1 X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X1 X0)))))) \Rightarrow \\ & (\forall X4. \forall X5. \forall X6. \forall X7. (g1_msual\!g_1 X0 \\ & X1 X2 X3 = g1_msual\!g_1 X4 X5 X6 X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge \\ & (X3 = X7)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_msual\!g_1 X0) \Rightarrow ((v1_funct_1 (u2_msual\!g_1 X0)) \wedge \\ & ((v1_funct_2 (u2_msual\!g_1 X0) (u4_struct_0 X0) (u1_struct_0 X0)) \wedge \\ & (m1_subset_1 (u2_msual\!g_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u4_struct_0 \\ & X0) (u1_struct_0 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_msual\!g_1 X0) \Rightarrow ((v1_funct_1 (u1_msual\!g_1 X0)) \wedge \\ & ((v1_funct_2 (u1_msual\!g_1 X0) (u4_struct_0 X0) (k3_finseq_2 (\\ & u1_struct_0 X0))) \wedge (m1_subset_1 (u1_msual\!g_1 X0) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u4_struct_0 X0) (k3_finseq_2 (u1_struct_0 X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_instal\!g_1 X0) \wedge (l1_msual\!g_1 X0)) \Rightarrow (\forall X1. \\ & (m4_algspec1 X1 X0) \Rightarrow (m3_algspec1 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_instal\!g_1 X0) \wedge (l1_msual\!g_1 X0)) \Rightarrow (\forall X1. \\ & (m2_algspec1 X1 X0) \Rightarrow ((v1_instal\!g_1 X1) \wedge (l1_msual\!g_1 X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_instal\!g_1 X0) \wedge (l1_msual\!g_1 X0)) \Rightarrow (\forall X1. \\ & (m3_algspec1 X1) \Rightarrow ((m4_algspec1 X1 X0) \Leftrightarrow (\exists X2. ((\neg v11_struct_0 \\ & X2) \wedge (m2_algspec1 X2 X0)) \wedge ((v1_msual\!g_6 X1 X2) \wedge (l3_msual\!g_1 X1 \\ & X2)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_instal\!g_1 X0) \wedge (l1_msual\!g_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_instal\!g_1 X1) \wedge (l1_msual\!g_1 X1)) \Rightarrow ((m2_algspec1 X1 X0) \Leftrightarrow (m1_instal\!g_1 \\ & X0 X1))) \end{aligned} \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v11_struct_0 X0) \wedge ((v1_instalg1 X0) \wedge (l1_msualg_1 \\ & X0))) \Rightarrow (\forall X1.((\neg v11_struct_0 X1) \wedge ((v1_instalg1 X1) \wedge (l1_msualg_1 \\ & X1))) \Rightarrow (\forall X2.((v4_msualg_1 X2 X0) \wedge ((v1_msafree1 X2 X0) \wedge \\ & (l3_msualg_1 X2 X0))) \Rightarrow ((m4_algspec1 X2 X1) \Rightarrow (m2_algspec1 X0 X1)))) \end{aligned}$$