

# t16\_instalg1

(TMU9FK1MkWxC4m9ULbMKJyJHqvzDVosdR2X)

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Let  $v1\_instalg1 : \iota \Rightarrow o$  be given. Let  $l1\_msualg\_1 : \iota \Rightarrow o$  be given. Let  $m1\_instalg1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $u2\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_instalg1 X0) \wedge (l1\_msualg\_1 X0)) \Rightarrow (\forall X1. \\ & ((v1\_instalg1 X1) \wedge (l1\_msualg\_1 X1)) \Rightarrow (((r1\_tarski (u1\_struct\_0 \\ & X1) (u1\_struct\_0 X0)) \wedge ((r1\_tarski (u1\_msualg\_1 X1) (u1\_msualg\_1 \\ & X0)) \wedge (r1\_tarski (u2\_msualg\_1 X1) (u2\_msualg\_1 X0)))) \Rightarrow (m1\_instalg1 \\ & X1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_instalg1 X0) \wedge (l1\_msualg\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_instalg1 X1 X0) \Rightarrow ((r1\_tarski (u2\_msualg\_1 X1) (u2\_msualg\_1 \\ & X0)) \wedge (r1\_tarski (u1\_msualg\_1 X1) (u1\_msualg\_1 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_instalg1 X0) \wedge (l1\_msualg\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_instalg1 X1 X0) \Rightarrow ((r1\_tarski (u1\_struct\_0 X1) (u1\_struct\_0 \\ & X0)) \wedge (r1\_tarski (u4\_struct\_0 X1) (u4\_struct\_0 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_instalg1 X0) \wedge (l1\_msualg\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_instalg1 X1 X0) \Rightarrow (l1\_msualg\_1 X1)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow \\ & (X2 \in X1)) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_instalg1 X0) \wedge (l1\_msualg\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_instalg1 X1 X0) \Rightarrow (v1\_instalg1 X1)) \end{aligned} \tag{6}$$

**Theorem 1**

$$\forall X0.((v1\_instal\!g1\ X0)\wedge(l1\_msual\!g\_1\ X0))\Rightarrow(\forall X1. \\ (m1\_instal\!g1\ X1\ X0)\Rightarrow(\forall X2.(m1\_instal\!g1\ X2\ X1)\Rightarrow(m1\_instal\!g1 \\ X2\ X0)))$$