

# t6\_msuhom\_1 (TM- dUKij91315CubXBhjmhTPm8HvA7smVQah)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_msualg\_1 : \iota \Rightarrow o$  be given. Let  $l1\_msualg\_1 : \iota \Rightarrow o$  be given. Let  $r1\_msuhom\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $u1\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $u2\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $g1\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l1\_msualg\_1 X0)) \wedge ((\neg v2\_struct\_0 X1) \wedge (l1\_msualg\_1 X1))) \Rightarrow (r1\_msuhom\_1 X0 X0) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_msualg\_1 X0)) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 X1) \wedge (l1\_msualg\_1 X1)) \Rightarrow ((r1\_msuhom\_1 X0 X1) \Leftrightarrow (r1\_tarski (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge ((r1\_tarski (u4\_struct\_0 X0) (u4\_struct\_0 X1)) \wedge (k2\_partfun1 (u4\_struct\_0 X1) (k3\_finseq\_2 (u1\_struct\_0 X1)) (u1\_msualg\_1 X1) (u4\_struct\_0 X0) = u1\_msualg\_1 X0) \wedge (k2\_partfun1 (u4\_struct\_0 X1) (u1\_struct\_0 X1) (u2\_msualg\_1 X1) (u4\_struct\_0 X0) = u2\_msualg\_1 X0)))))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_msualg\_1 X0) \Rightarrow ((v1\_msualg\_1 X0) \Rightarrow (X0 = g1\_msualg\_1 (u1\_struct\_0 X0) (u4\_struct\_0 X0) (u1\_msualg\_1 X0) (u2\_msualg\_1 X0))) \quad (4)$$

## Theorem 1

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_msualg\_1 X0) \wedge (l1\_msualg\_1 X0))) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v1\_msualg\_1 X1) \wedge (l1\_msualg\_1 X1))) \Rightarrow (((r1\_msuhom\_1 X0 X1) \wedge (r1\_msuhom\_1 X1 X0)) \Rightarrow (X0 = X1)))$$