

## t7\_msualg\_8

(TMJ51xx3ihBNkJmXYmkp1WFr3dmvC7A5wUj)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_msualg\_5 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k15\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r3\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v10\_lattices : \iota \Rightarrow o$  be given. Let  $v4\_lattice3 : \iota \Rightarrow o$  be given. Let  $l3\_lattices : \iota \Rightarrow o$  be given. Let  $k16\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_lattices : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Rightarrow (r1\_tarski X2 X1)) \Rightarrow (r1\_tarski (k3\_tarski X0) X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 (k2\_msualg\_5 X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 (k2\_msualg\_5 X0))) \Rightarrow ((r3\_lattices (k2\_msualg\_5 X0) X1 X2) \Leftrightarrow (r1\_tarski X1 X2))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v10\_lattices X0) \wedge ((v4\_lattice3 X0) \wedge (l3\_lattices X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (X1 \in X2) \Rightarrow ((r3\_lattices X0 X1 (k15\_lattice3 X0 X2)) \wedge (r3\_lattices X0 (k16\_lattice3 X0 X2) X1)))) \quad (4)$$

Assume the following.

$$\forall X0. (\neg v2\_struct\_0 (k2\_msualg\_5 X0)) \wedge ((v3\_lattices (k2\_msualg\_5 X0)) \wedge ((v10\_lattices (k2\_msualg\_5 X0)) \wedge (v4\_lattice3 (k2\_msualg\_5 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.(\neg v2\_struct\_0 (k2\_msualg\_5 X0)) \wedge ((v3\_lattices (k2\_msualg\_5 X0)) \wedge ((v10\_lattices (k2\_msualg\_5 X0)) \wedge (l3\_lattices (k2\_msualg\_5 X0)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0 X0) \wedge (l3\_lattices X0)) \Rightarrow (m1\_subset\_1 (k15\_lattice3 X0 X1) (u1\_struct\_0 X0)) \quad (7)$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k2\_msualg\_5 X0)))) \Rightarrow (r1\_tarski (k3\_tarski X1) (k15\_lattice3 (k2\_msualg\_5 X0) X1))$$