

t15\_yellow\_5  
(TMVBxqd2h5aoNFS4y4qT6JhoQJvxX2jhQVk)

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Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $v2\_lattice3 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r2\_yellow\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_yellow\_0 : \iota \Rightarrow \iota$  be given. Let  $k12\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_yellow\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k11\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k12\_lattice3 X0 X1 X1 = X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v5\_orders\_2 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow ((r2\_yellow\_5 X0 X1 X2) \Leftrightarrow (r1\_yellow\_5 X0 X1 X2)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v5\_orders\_2 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow (k12\_lattice3 X0 X1 X2 = k11\_lattice3 X0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_yellow\_5 X0 X1 X2) \Leftrightarrow (k11\_lattice3 X0 X1 X2 \neq k3\_yellow\_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow ((v1\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0) \Rightarrow ((r2\_yellow\_5 \\ & X0 X1 X1) \Leftrightarrow (X1 \neq k3\_yellow\_0 X0))) \end{aligned}$$