

t33\_yellow\_0  
(TMMgaQ76VdZ5AYnz6LSzohG912iuRLhe86P)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v3\_lattice3 : \iota \Rightarrow o$  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  $k2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(((X1 = k2\_yellow\_0 \\ & X0 X2) \wedge (r2\_yellow\_0 X0 X2)) \Rightarrow ((r1\_lattice3 X0 X2 X1) \wedge (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((r1\_lattice3 X0 X2 X3) \Rightarrow (r1\_orders\_2 \\ & X0 X3 X1)))))) \wedge (((r1\_lattice3 X0 X2 X1) \wedge (\forall X3.(m1\_subset\_1 \\ & X3 (u1\_struct\_0 X0)) \Rightarrow ((r1\_lattice3 X0 X2 X3) \Rightarrow (r1\_orders\_2 X0 X3 \\ & X1)))) \Rightarrow ((X1 = k2\_yellow\_0 X0 X2) \wedge (r2\_yellow\_0 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v3\_lattice3 X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.(r1\_yellow\_0 X0 X1) \wedge (r2\_yellow\_0 X0 X1)) \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v3\_lattice3 \\ & X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X2.(X1 = k2\_yellow\_0 X0 X2) \Leftrightarrow ((r1\_lattice3 X0 X2 X1) \wedge \\ & (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((r1\_lattice3 \\ & X0 X2 X3) \Rightarrow (r1\_orders\_2 X0 X3 X1)))))) \end{aligned}$$