

t48\_yellow\_5

(TMaeVRqsgP3RSgt86dC6J9GF5HYv2nCrH7c)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v11\_waybel\_1 : \iota \Rightarrow o$  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  $k1\_yellow\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k13\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_yellow\_0 : \iota \Rightarrow \iota$  be given. Let  $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v2\_lattice3 : \iota \Rightarrow o$  be given. Let  $v3\_yellow\_0 : \iota \Rightarrow o$  be given. Let  $v2\_waybel\_1 : \iota \Rightarrow o$  be given. Let  $v10\_waybel\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v11\_waybel\_1 X0) \wedge (l1\_orders\_2 \\ & X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((k1\_yellow\_5 X0 X1 X2 = k3\_yellow\_0 \\ & X0) \Leftrightarrow (r3\_orders\_2 X0 X1 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge (l1\_orders\_2 \\ & X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & (u1\_struct\_0 X0)) \Rightarrow ((X3 = k13\_lattice3 X0 X1 X2) \Leftrightarrow ((r1\_orders\_2 \\ & X0 X1 X3) \wedge ((r1\_orders\_2 X0 X2 X3) \wedge (\forall X4. (m1\_subset\_1 X4 ( \\ & u1\_struct\_0 X0)) \Rightarrow (((r1\_orders\_2 X0 X1 X4) \wedge (r1\_orders\_2 X0 X2 X4)) \Rightarrow \\ & (r1\_orders\_2 X0 X3 X4)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 \\ & X0) \wedge (l1\_orders\_2 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge ( \\ & m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow ((r3\_orders\_2 X0 X1 X2) \Leftrightarrow (r1\_orders\_2 \\ & X0 X1 X2)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v5\_orders\_2 X0)\wedge((v1\_lattice3 X0)\wedge(l1\_orders\_2 X0)))\wedge((m1\_subset\_1 X1 (u1\_struct\_0 X0))\wedge(m1\_subset\_1 X2 (u1\_struct\_0 X0))))\Rightarrow(m1\_subset\_1 (k13\_lattice3 X0 X1 X2) (u1\_struct\_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0)\Rightarrow(((\neg v2\_struct\_0 X0)\wedge(v11\_waybel\_1 X0))\Rightarrow((\neg v2\_struct\_0 X0)\wedge((v3\_orders\_2 X0)\wedge((v4\_orders\_2 X0)\wedge((v5\_orders\_2 X0)\wedge((v1\_lattice3 X0)\wedge((v2\_lattice3 X0)\wedge((v3\_yellow\_0 X0)\wedge((v2\_waybel\_1 X0)\wedge(v10\_waybel\_1 X0)))))))))) \quad (5)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v11\_waybel\_1 X0)\wedge(l1\_orders\_2 X0)))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0))\Rightarrow(k1\_yellow\_5 X0 X1 (k13\_lattice3 X0 X1 X2) = k3\_yellow\_0 X0)))$$