

## t1\_yellow\_7

(TMKYQvA6b6wr7zcfcmhafVr1rSZU4fnANAV)

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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  $k7\_lattice3 : \iota \Rightarrow \iota$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_orders\_2 \\ & X0 X1 X2) \Leftrightarrow (r1\_orders\_2 (k7\_lattice3 X0) (k8\_lattice3 X0 X2) (k8\_lattice3 \\ & X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1\_orders\_2 X0) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 \\ & (k7\_lattice3 X0)))) \Rightarrow (m1\_subset\_1 (k9\_lattice3 X0 X1) (u1\_struct\_0 \\ & X0)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & (k7\_lattice3 X0))) \Rightarrow (k9\_lattice3 X0 X1 = X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (k8\_lattice3 X0 X1 = X1)) \end{aligned} \tag{4}$$

### Theorem 1

$$\begin{aligned} & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & (k7\_lattice3 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ & (k7\_lattice3 X0))) \Rightarrow ((r1\_orders\_2 (k7\_lattice3 X0) X1 X2) \Leftrightarrow (r1\_orders\_2 \\ & X0 (k9\_lattice3 X0 X2) (k9\_lattice3 X0 X1)))))) \end{aligned}$$