

t22\_yellow\_7

(TMR2UWHrHT5ukdRQRj8qHyfPjGWtFezPcpc)

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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  $v2\_lattice3 : \iota \Rightarrow o$  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  $k7\_lattice3 : \iota \Rightarrow \iota$  be given. Let  $k12\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k13\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ X0)) \Rightarrow (k12\_lattice3 X0 X1 X2 = k13\_lattice3 (k7\_lattice3 X0) (k8\_lattice3 \\ X0 X1) (k8\_lattice3 X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_orders\_2 X0) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 \\ (k7\_lattice3 X0)))) \Rightarrow (m1\_subset\_1 (k9\_lattice3 X0 X1) (u1\_struct\_0 \\ X0)) \quad (2)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ (k7\_lattice3 X0))) \Rightarrow (k9\_lattice3 X0 X1 = X1)) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (k8\_lattice3 X0 X1 = X1)) \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (u1\_struct\_0 (k7\_lattice3 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 \\ X2 (u1\_struct\_0 (k7\_lattice3 X0))) \Rightarrow (k12\_lattice3 X0 (k9\_lattice3 \\ X0 X1) (k9\_lattice3 X0 X2) = k13\_lattice3 (k7\_lattice3 X0) X1 X2))) \end{aligned}$$