

## t5\_yellow\_7

(TMVsUz4xyUrLqV1p6g75QSkqa1NGRSyiWS4)

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Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k7\_lattice3 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $r4\_relat\_2 : \iota \Rightarrow \iota \Rightarrow o$  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.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (k7\_lattice3 (k7\_lattice3 X0) = g1\_orders\_2 \\ (u1\_struct\_0 X0) (u1\_orders\_2 X0)) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (u1\_struct\_0 X0 = u1\_struct\_0 (k7\_lattice3 \\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ X0 X0))) \Rightarrow (\forall X2.\forall X3.(g1\_orders\_2 X0 X1 = g1\_orders\_2 \\ X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (u1\_orders\_2 X0) (k1\_zfmisc\_1 \\ (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v1\_orders\_2 (k7\_lattice3 X0)) \wedge \\ (l1\_orders\_2 (k7\_lattice3 X0))) \tag{6}$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k8\_lattice3 X0 X1 = X1)) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v5\_orders\_2 X0) \Leftrightarrow (r4\_relat\_2 (u1\_orders\_2 X0) (u1\_struct\_0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v5\_orders\_2 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_orders\_2 X0 X1 X2) \wedge (r1\_orders\_2 X0 X2 X1)) \Rightarrow (X1 = X2)))))) \quad (9)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v1\_orders\_2 X0) \Rightarrow (X0 = g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 X0))) \quad (10)$$

**Theorem 1**

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v5\_orders\_2 X0) \Leftrightarrow (v5\_orders\_2 (k7\_lattice3 X0)))$$