t2_yellow_4 (TMdTzHQo7qgf5RWKjZheCQVXGjNqFUhhcsB)

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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 $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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. Assume the following.

$$\forall X0.\forall X1.(l1\_orders\_2\ X0) \Rightarrow (m1\_subset\_1\ (k2\_yellow\_0\ X0\ X1)\ (u1\_struct\_0\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_lattice3\ X0\ X1\ X2) \Leftrightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1\_orders\_2\ X0\ X2\ X3))))) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((r2\_yellow\_0\ X0\ X1) \Rightarrow ((X2 = k2\_yellow\_0\ X0\ X1) \Leftrightarrow ((r1\_lattice3\ X0\ X1\ X2) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_lattice3\ X0\ X1\ X3) \Rightarrow (r1\_orders\_2\ X0\ X3\ X2))))))) \tag{3}$$

Theorem 1

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (((X2 \in X1) \wedge (r2\_yellow\_0\ X0\ X1)) \Rightarrow (r1\_orders\_2\ X0\ (k2\_yellow\_0\ X0\ X1)\ X2)))$$