

## t30\_yellow\_6

(TMPTsWvXy8HpYQnBd1vQtBPxXDZfhGWyn79)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k7\_lattice3 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k2\_yellow\_1 : \iota \Rightarrow \iota$  be given. 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  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_yellow\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (u1\_struct\_0 X0 = u1\_struct\_0 (k7\_lattice3 X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0))) \Rightarrow (\forall X2.\forall X3.(g1\_orders\_2 X0 X1 = g1\_orders\_2 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_orders\_2 (k2\_yellow\_1 X0)) \wedge ((v3\_orders\_2 (k2\_yellow\_1 X0)) \wedge ((v4\_orders\_2 (k2\_yellow\_1 X0)) \wedge (v5\_orders\_2 (k2\_yellow\_1 X0)))) \quad (3)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (u1\_orders\_2 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_orders\_2 (k2\_yellow\_1 X0)) \wedge (l1\_orders\_2 (k2\_yellow\_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. k2\_yellow\_1 X0 = g1\_orders\_2 X0 (k1\_yellow\_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k9\_yellow\_6 \\ X0 X1 = k7\_lattice3 (k2\_yellow\_1 (ReplSep (toset (\lambda X2 : \iota. m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) (\lambda X2 : \iota. (X1 \in X2) \wedge (v3\_pre\_topc \\ X2 X0)) (\lambda X2 : \iota. X2)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow ((v1\_orders\_2 X0) \Rightarrow (X0 = g1\_orders\_2 \\ (u1\_struct\_0 X0) (u1\_orders\_2 X0))) \quad (8)$$

**Theorem 1**

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X2 \in u1\_struct\_0 \\ (k9\_yellow\_6 X0 X1)) \Leftrightarrow ((X1 \in X2) \wedge (v3\_pre\_topc X2 X0)))))) \end{aligned}$$