

t18\_yellow12 (TMckb-  
WJvB4pFo5nWRiiRxtCXZVwkGajQApX)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $v6\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(l1\_orders\_2 X1) \Rightarrow (( \\ g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 \\ X1) (u1\_orders\_2 X1)) \Rightarrow (\forall X2.(r1\_yellow\_0 X0 X2) \Rightarrow (k1\_yellow\_0 \\ X0 X2 = k1\_yellow\_0 X1 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(l1\_orders\_2 X1) \Rightarrow (( \\ g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 \\ X1) (u1\_orders\_2 X1)) \Rightarrow (\forall X2.((r1\_yellow\_0 X0 X2) \Rightarrow (r1\_yellow\_0 \\ X1 X2)) \wedge ((r2\_yellow\_0 X0 X2) \Rightarrow (r2\_yellow\_0 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ X0 X0))) \Rightarrow (\forall X2.\forall X3.(g1\_orders\_2 X0 X1 = g1\_orders\_2 \\ X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (3)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_yellow\_0 X1 X0) \Rightarrow \\ (l1\_orders\_2 X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\
& (m1\_yellow\_0 X1 X0) \Rightarrow ((v6\_yellow\_0 X1 X0) \Leftrightarrow (\forall X2.(m1\_subset\_1 \\
& X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\
& X0)) \Rightarrow (((X2 \in u1\_struct\_0 X1) \wedge ((X3 \in u1\_struct\_0 X1) \wedge (r1\_yellow\_0 \\
& X0 (k7\_domain\_1 (u1\_struct\_0 X0) X2 X3)))) \Rightarrow (k1\_yellow\_0 X0 (k7\_domain\_1 \\
& (u1\_struct\_0 X0) X2 X3) \in u1\_struct\_0 X1))))))
\end{aligned} \tag{6}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \Rightarrow (\forall X2.(m1\_yellow\_0 \\
& X2 X0) \Rightarrow (\forall X3.(m1\_yellow\_0 X3 X1) \Rightarrow (((g1\_orders\_2 (u1\_struct\_0 \\
& X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 X1) (u1\_orders\_2 \\
& X1)) \wedge ((g1\_orders\_2 (u1\_struct\_0 X2) (u1\_orders\_2 X2) = g1\_orders\_2 \\
& (u1\_struct\_0 X3) (u1\_orders\_2 X3)) \wedge (v6\_yellow\_0 X2 X0))) \Rightarrow (v6\_yellow\_0 \\
& X3 X1))))))
\end{aligned}$$