

t40\_yellow16  
(TMH8b1WTEgGHXbvpvVo4PZh2YmmHE5keDua)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r5\_yellow16 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  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  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v4\_orders\_2 X0) \wedge (l1\_orders\_2 \\ X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v4\_yellow\_0 X1 X0) \wedge ( \\ m1\_yellow\_0 X1 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X1))) \Rightarrow (((r1\_yellow\_0 X0 X2) \wedge (k1\_yellow\_0 X0 X2 \in \\ u1\_struct\_0 X1)) \Rightarrow ((r1\_yellow\_0 X1 X2) \wedge (k1\_yellow\_0 X1 X2 = k1\_yellow\_0 \\ X0 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\neg v1\_xboole\_0 (u1\_struct\_0 X0)) \tag{3}$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (\forall X1. (m1\_yellow\_0 X1 X0) \Rightarrow (l1\_orders\_2 X1)) \tag{4}$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (l1\_struct\_0 X0) \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. (l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (k1\_yellow\_0 X0 X1) (u1\_struct\_0 X0)) \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2\_struct\_0 X1) \wedge (l1\_orders\_2 X1)) \Rightarrow (\forall X2.(r5\_yellow16 \\ & X0 X1 X2) \Leftrightarrow ((r1\_yellow\_0 X1 X2) \Rightarrow (k1\_yellow\_0 X1 X2 \in u1\_struct\_0 \\ & X0)))) \end{aligned} \tag{7}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v4\_orders\_2 X0) \wedge (l1\_orders\_2 \\ & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v4\_yellow\_0 X1 X0) \wedge ( \\ & m1\_yellow\_0 X1 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X1))) \Rightarrow ((r5\_yellow16 X1 X0 X2) \Leftrightarrow ((r1\_yellow\_0 X0 X2) \Rightarrow \\ & ((r1\_yellow\_0 X1 X2) \wedge (k1\_yellow\_0 X1 X2 = k1\_yellow\_0 X0 X2)))))) \end{aligned}$$