

# t18\_yellow14 (TMJJcmobsQhgv- Muuwz7QZtUwW5zLjBHRjw5)

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Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $r1\_t\_0topsp : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  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  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_tops\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(l1\_pre\_topc X1) \Rightarrow (( \\ & \quad \exists X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) \\ & \quad (u1\_struct\_0 X1)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & \quad (u1\_struct\_0 X0) (u1\_struct\_0 X1)))))) \wedge (v3\_tops\_2 X2 X0 X1)) \Rightarrow \\ & \quad ((v2\_struct\_0 X0) \Leftrightarrow (v2\_struct\_0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_struct\_0 X0) \Rightarrow (\forall X1.(l1\_struct\_0 X1) \Rightarrow (\forall X2. \\ & ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 \\ & X1)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 X1)))))) \Rightarrow (((v2\_struct\_0 X1) \wedge (k1\_relset\_1 ( \\ & u1\_struct\_0 X0) X2 = k2\_struct\_0 X0)) \Rightarrow (v2\_struct\_0 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_struct\_0 X0) \Rightarrow (\forall X1.(l1\_struct\_0 X1) \Rightarrow (\forall X2. \\ & ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X0) (u1\_struct\_0 \\ & X1)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 X1)))))) \Rightarrow (((v2\_struct\_0 X0) \wedge (k2\_relset\_1 ( \\ & u1\_struct\_0 X1) X2 = k2\_struct\_0 X1)) \Rightarrow (v2\_struct\_0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (l1\_struct\_0 X0) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(l1\_pre\_topc\ X1) \Rightarrow (( \\
& \quad r1\_t\_0topsp\ X0\ X1) \Leftrightarrow (\exists X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2 \\
& \quad X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1 \\
& \quad (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))))) \wedge (v3\_tops\_2 \\
& \quad X2\ X0\ X1)))) \\
& \tag{5}
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(l1\_pre\_topc\ X1) \Rightarrow (( \\
& \quad \neg(\neg r1\_t\_0topsp\ X0\ X1) \wedge (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2 \\
& \quad X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1 \\
& \quad (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))))) \Rightarrow (\neg(k1\_relset\_1 \\
& \quad (u1\_struct\_0\ X0)\ X2 = k2\_struct\_0\ X0) \wedge (k2\_relset\_1\ (u1\_struct\_0 \\
& \quad X1)\ X2 = k2\_struct\_0\ X1)))) \Rightarrow ((v2\_struct\_0\ X0) \Leftrightarrow (v2\_struct\_0\ X1))))
\end{aligned}$$