t49_yellow_9 (TMWpBkwkPWKkCX-ezR24DgKbbxCJBat1M16W)

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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 $v1\_lattice3 : \iota \Rightarrow o$ be given. Let $v2\_lattice3 : \iota \Rightarrow o$ be given. Let $v3\_lattice3 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $m1\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_pre\_topc : \iota \Rightarrow \iota$ be given. Let $k5\_waybel11 : \iota \Rightarrow \iota$ be given. Let $v4\_waybel11 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v24\_waybel\_0 : \iota \Rightarrow o$ 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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_waybel11 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_waybel11 : \iota \Rightarrow \iota$ be given. Let $v13\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v12\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v25\_waybel\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v24\_waybel\_0\ X0) \wedge (l1\_orders\_2\ X0))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v3\_orders\_2\ X1) \wedge (l1\_orders\_2\ X1))) \Rightarrow ((g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0) = g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow (((X2 = X3) \wedge (v1\_waybel11\ X2\ X0)) \Rightarrow (v1\_waybel11\ X3\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X1 \in u1\_pre\_topc\ (k13\_yellow\_6\ X0\ (k2\_waybel11\ X0))) \Leftrightarrow ((v1\_waybel11\ X1\ X0) \wedge (v13\_waybel\_0\ X1\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(l1\_orders\_2\ X1)\Rightarrow((g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0) = g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow((X2 = X3)\Rightarrow(((v12\_waybel\_0\ X2\ X0)\Rightarrow(v12\_waybel\_0\ X3\ X1))\wedge((v13\_waybel\_0\ X2\ X0)\Rightarrow(v13\_waybel\_0\ X3\ X1)))))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))\Rightarrow(\forall X2.\forall X3.(g1\_orders\_2\ X0\ X1 = g1\_orders\_2\ X2\ X3)\Rightarrow((X0 = X2)\wedge(X1 = X3))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(m1\_subset\_1\ (u1\_orders\_2\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(l1\_waybel\_9\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.(l1\_waybel\_9\ X0)\Rightarrow((l1\_pre\_topc\ X0)\wedge(l1\_orders\_2\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(l1\_waybel\_9\ X1)\Rightarrow((m1\_yellow\_9\ X1\ X0)\Leftrightarrow(g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1) = g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0)))) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_waybel\_9\ X0)))\Rightarrow((v4\_waybel11\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((v3\_pre\_topc\ X1\ X0)\Leftrightarrow((v1\_waybel11\ X1\ X0)\wedge(v13\_waybel\_0\ X1\ X0))))) \tag{9}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((v3\_pre\_topc\ X1\ X0)\Leftrightarrow(X1 \in u1\_pre\_topc\ X0))) \tag{10}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(k5\_waybel11\ X0 = u1\_pre\_topc\ (k13\_yellow\_6\ X0\ (k2\_waybel11\ X0))) \tag{11}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v3\_lattice3\ X1)) \tag{12}$$

Assume the following.

$$\forall X0.((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v5\_orders\_2\ X1)) \tag{13}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v3\_orders\_2\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(\neg v2\_struct\_0\ X1)) \tag{15}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(v3\_lattice3\ X0)))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v24\_waybel\_0\ X0)\wedge(v25\_waybel\_0\ X0))))) \tag{17}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow((u1\_pre\_topc\ X1 = k5\_waybel11\ X0)\Rightarrow(v4\_waybel11\ X1)))$$