t48_yellow_9 (TMbAh3cja1Vkt7bsAXw864eA94b41bE6KmL)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v3\_orders\_2 : \iota \Rightarrow o$ 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 $v2\_pre\_topc : \iota \Rightarrow o$ 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 $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $m4\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_pre\_topc : \iota \Rightarrow o$ be given. Let $k13\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_orders\_2 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $l1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $k2\_waybel11 : \iota \Rightarrow \iota$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v7\_waybel\_0 : \iota \Rightarrow o$ be given. Let $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))) \Rightarrow (\forall X2.\forall X3.(g1\_orders\_2\ X0\ X1 = g1\_orders\_2\ X2\ X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \wedge (m4\_yellow\_6\ X1\ X0)) \Rightarrow ((v1\_pre\_topc\ (k13\_yellow\_6\ X0\ X1)) \wedge (v2\_pre\_topc\ (k13\_yellow\_6\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (m1\_subset\_1\ (u1\_orders\_2\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.(m1\_yellow\_9\ X1\ X0) \Rightarrow (l1\_waybel\_9\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_waybel\_9\ X0) \Rightarrow ((l1\_pre\_topc\ X0) \wedge (l1\_orders\_2\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (l1\_struct\_0\ X0) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0))) \Rightarrow (m4\_yellow\_6\ (k2\_waybel11\ X0)\ X0) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \wedge (m4\_yellow\_6\ X1\ X0)) \Rightarrow ((v1\_pre\_topc\ (k13\_yellow\_6\ X0\ X1)) \wedge (l1\_pre\_topc\ (k13\_yellow\_6\ X0\ X1))) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.(l1\_waybel\_9\ X1) \Rightarrow ((m1\_yellow\_9\ X1\ X0) \Leftrightarrow (g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1) = g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0)))) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\forall X1.\ (m4\_yellow\_6\ X1\ X0) \Rightarrow (\forall X2.((v1\_pre\_topc\ X2) \wedge (l1\_pre\_topc\ X2)) \Rightarrow ((X2 = k13\_yellow\_6\ X0\ X1) \Leftrightarrow ((u1\_struct\_0\ X2 = u1\_struct\_0\ X0) \wedge (u1\_pre\_topc\ X2 = ReplSep\ (toset\ (\lambda X3 : \iota.m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\ (\lambda X3 : \iota.\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow ((X4 \in X3) \Rightarrow (\forall X5.((\neg v2\_struct\_0\ X5) \wedge ((v4\_orders\_2\ X5) \wedge ((v7\_waybel\_0\ X5) \wedge (l1\_waybel\_0\ X5\ X0)))) \Rightarrow ((k4\_tarski\ X5\ X4 \in X1) \Rightarrow (r1\_waybel\_0\ X0\ X5\ X3))))))\ (\lambda X3 : \iota.\ X3)))))) \tag{10}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow ((v2\_pre\_topc\ X0) \Leftrightarrow ((u1\_struct\_0\ X0 \in u1\_pre\_topc\ X0) \wedge ((\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow ((r1\_tarski\ X1\ (u1\_pre\_topc\ X0)) \Rightarrow (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1 \in u1\_pre\_topc\ X0))) \wedge (\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.\ (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (((X1 \in u1\_pre\_topc\ X0) \wedge (X2 \in u1\_pre\_topc\ X0)) \Rightarrow (k9\_subset\_1\ (u1\_struct\_0\ X0)\ X1\ X2 \in u1\_pre\_topc\ X0))))))) \tag{11}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0))) \Rightarrow (k5\_waybel11\ X0 = u1\_pre\_topc\ (k13\_yellow\_6\ X0\ (k2\_waybel11\ X0))) \tag{12}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow((u1\_pre\_topc\ X1 = k5\_waybel11\ X0)\Rightarrow(v2\_pre\_topc\ X1)))$$