t15_waybel30 (TMc7xrZDmZN6UwQjUxuPgN4TXPKPJPkFAt4)

October 27, 2020

Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. 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 $v2\_waybel19 : \iota \Rightarrow o$ be given. Let $v2\_waybel\_2 : \iota \Rightarrow o$ be given. Let $l1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $v4\_waybel11 : \iota \Rightarrow o$ be given. Let $m1\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_waybel19 : \iota \Rightarrow \iota$ be given. Let $u1\_pre\_topc : \iota \Rightarrow \iota$ be given. Let $k5\_waybel11 : \iota \Rightarrow \iota$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_orders\_2 : \iota \Rightarrow \iota$ be given. Let $k3\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge ((v2\_waybel19\ X0) \wedge (l1\_waybel\_9\ X0))))))))) \Rightarrow (k2\_waybel19\ X0 = u1\_pre\_topc\ X0) \tag{1}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge ((v4\_waybel11\ X0) \wedge (l1\_waybel\_9\ X0))))))))) \Rightarrow (k5\_waybel11\ X0 = u1\_pre\_topc\ X0) \tag{2}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge ((v2\_waybel19\ X0) \wedge ((v2\_waybel\_2\ X0) \wedge (l1\_waybel\_9\ X0))))))))) \Rightarrow (\forall X1.((v4\_waybel11\ X1) \wedge (m1\_yellow\_9\ X1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X2 \in k2\_waybel19\ X0) \Rightarrow (k4\_waybel\_0\ X0\ X2 \in k5\_waybel11\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(l1\_orders\_2\ X1)\Rightarrow((g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0) = g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow((X2 = X3)\Rightarrow((k3\_waybel\_0\ X0\ X2 = k3\_waybel\_0\ X1\ X3)\wedge(k4\_waybel\_0\ X0\ X2 = k4\_waybel\_0\ X1\ X3)))))))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(l1\_waybel\_9\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_waybel\_9\ X0)\Rightarrow((l1\_pre\_topc\ X0)\wedge(l1\_orders\_2\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_orders\_2\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(m1\_subset\_1\ (k4\_waybel\_0\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{7}$$

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.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((v3\_pre\_topc\ X1\ X0)\Leftrightarrow(X1 \in u1\_pre\_topc\ X0))) \tag{9}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow((v4\_waybel11\ X1)\Rightarrow(v2\_pre\_topc\ X1))) \tag{10}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v3\_lattice3\ X1)) \tag{11}$$

Assume the following.

$$\forall X0.((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v5\_orders\_2\ X1)) \tag{12}$$

Assume the following.

$$\forall X0.((v4\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m1\_yellow\_9\ X1\ X0)\Rightarrow(v4\_orders\_2\ X1)) \tag{13}$$

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.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v2\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m1\_yellow\_9\ X1\ X0)\Rightarrow(\neg v2\_struct\_0\ X1)) \tag{16}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge(v3\_lattice3\ X0))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((v1\_lattice3\ X0)\wedge(v2\_lattice3\ X0)))) \tag{17}$$

Theorem 1

$$\forall X0.((v2\_pre\_topc\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge((v2\_waybel19\ X0)\wedge((v2\_waybel\_2\ X0)\wedge(l1\_waybel\_9\ X0))))))))))\Rightarrow(\forall X1.((v4\_waybel11\ X1)\wedge(m1\_yellow\_9\ X1\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow(((X2 = X3)\wedge(v3\_pre\_topc\ X2\ X0))\Rightarrow(v3\_pre\_topc\ (k4\_waybel\_0\ X1\ X3)\ X1)))))$$