t17_waybel28 (TMF2mR57oBHGoZyDxyy7DUS8yj3Wvnf6exK)

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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 $v4\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_waybel28 : \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v7\_waybel\_0 : \iota \Rightarrow o$ be given. Let $v1\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_waybel11 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m4\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_yellow\_6 : \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v7\_waybel\_0\ X1) \wedge ((v1\_yellow\_6\ X1\ X0) \wedge (l1\_waybel\_0\ X1\ X0))))) \Rightarrow (k4\_yellow\_6\ X0\ X1 = k1\_waybel11\ X0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v7\_waybel\_0\ X1) \wedge ((v1\_yellow\_6\ X1\ X0) \wedge (l1\_waybel\_0\ X1\ X0))))) \Rightarrow (\forall X2.(m2\_yellow\_6\ X2\ X0\ X1) \Rightarrow ((v1\_yellow\_6\ X2\ X0) \wedge (k4\_yellow\_6\ X0\ X1 = k4\_yellow\_6\ X0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \wedge ((\neg v2\_struct\_0\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v7\_waybel\_0\ X1) \wedge (l1\_waybel\_0\ X1\ X0))))) \Rightarrow (\forall X2.(m2\_yellow\_6\ X2\ X0\ X1) \Rightarrow ((\neg v2\_struct\_0\ X2) \wedge ((v4\_orders\_2\ X2) \wedge ((v7\_waybel\_0\ X2) \wedge (l1\_waybel\_0\ X2\ X0))))) \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_struct\_0\ X0))\wedge (l1\_waybel\_0\ X1\ X0))\Rightarrow(m1\_subset\_1\ (k4\_yellow\_6\ X0\ X1)\ (u1\_struct\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(m4\_yellow\_6\ (k3\_waybel28\ X0)\ X0) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m4\_yellow\_6\ X1\ X0)\Rightarrow((X1 = k3\_waybel28\ X0)\Leftrightarrow(\forall X2.((\neg v2\_struct\_0\ X2)\wedge((v4\_orders\_2\ X2)\wedge((v7\_waybel\_0\ X2)\wedge(l1\_waybel\_0\ X2\ X0))))\Rightarrow((X2 \in k6\_yellow\_6\ X0)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((k4\_tarski\ X2\ X3 \in X1)\Leftrightarrow(\forall X4.(m2\_yellow\_6\ X4\ X0\ X2)\Rightarrow(X3 = k1\_waybel11\ X0\ X4))))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_struct\_0\ X0))\Rightarrow(\forall X1.\ (m4\_yellow\_6\ X1\ X0)\Rightarrow((v4\_yellow\_6\ X1\ X0)\Leftrightarrow(\forall X2.((\neg v2\_struct\_0\ X2)\wedge((v4\_orders\_2\ X2)\wedge((v7\_waybel\_0\ X2)\wedge((v1\_yellow\_6\ X2\ X0)\wedge (l1\_waybel\_0\ X2\ X0)))))\Rightarrow((X2 \in k6\_yellow\_6\ X0)\Rightarrow(k4\_tarski\ X2\ (k4\_yellow\_6\ X0\ X2) \in X1))))) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{9}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge (l1\_orders\_2\ X0)))))))\Rightarrow(v4\_yellow\_6\ (k3\_waybel28\ X0)\ X0)$$