t3_waybel_4 (TMTvvzHqFvNmVuEqfP-KFx7wxnA349dmn3Y7)

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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 $v1\_yellow\_0 : \iota \Rightarrow o$ be given. Let $v1\_lattice3 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $k4\_yellow\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_yellow\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_waybel\_4 : \iota \Rightarrow \iota$ be given. Let $k2\_waybel\_4 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r2\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $r1\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_orders\_2 : \iota \Rightarrow \iota$ be given. Let $k1\_yellow\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v4\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1\_xboole\_0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow ((r2\_lattice3\ X0\ k1\_xboole\_0\ X1) \wedge (r1\_lattice3\ X0\ k1\_xboole\_0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{3}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k2\_yellow\_1\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k2\_yellow\_1\ X0))) \Rightarrow ((r3\_orders\_2\ (k2\_yellow\_1\ X0)\ X1\ X2) \Leftrightarrow (r1\_tarski\ X1\ X2)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1))\Leftrightarrow(r1\_tarski\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(((X1 = k2\_yellow\_0\ X0\ X2)\wedge(r2\_yellow\_0\ X0\ X2))\Rightarrow((r1\_lattice3\ X0\ X2\ X1)\wedge(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_lattice3\ X0\ X2\ X3)\Rightarrow(r1\_orders\_2\ X0\ X3\ X1)))))\wedge(((r1\_lattice3\ X0\ X2\ X1)\wedge(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_lattice3\ X0\ X2\ X3)\Rightarrow(r1\_orders\_2\ X0\ X3\ X1))))\Rightarrow((X1 = k2\_yellow\_0\ X0\ X2)\wedge(r2\_yellow\_0\ X0\ X2))))) \tag{6}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_yellow\_0\ X0)\wedge((v1\_lattice3\ X0)\wedge(l1\_orders\_2\ X0))))))\Rightarrow(\forall X1.((v1\_waybel\_4\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))\Rightarrow(r1\_relset\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ (k2\_waybel\_4\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1)\Rightarrow((v1\_xboole\_0\ X1)\vee(X0 \in X1)) \tag{8}$$

Assume the following.

$$\forall X0.(u1\_struct\_0\ (k2\_yellow\_1\ X0) = X0)\wedge(u1\_orders\_2\ (k2\_yellow\_1\ X0) = k1\_yellow\_1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow((r3\_orders\_2\ X0\ X1\ X2)\Leftrightarrow(r1\_orders\_2\ X0\ X1\ X2)) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((r1\_relset\_1\ X0\ X1\ X2\ X3)\Leftrightarrow(r1\_tarski\ X2\ X3)) \tag{12}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow ((\neg v2\_struct\_0\ (k2\_yellow\_1\ X0)) \wedge (v1\_orders\_2\ (k2\_yellow\_1\ X0))) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_orders\_2\ (k2\_yellow\_1\ X0)) \wedge ((v3\_orders\_2\ (k2\_yellow\_1\ X0)) \wedge ((v4\_orders\_2\ (k2\_yellow\_1\ X0)) \wedge (v5\_orders\_2\ (k2\_yellow\_1\ X0)))) \tag{14}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_yellow\_0\ X0) \wedge (l1\_orders\_2\ X0)))) \Rightarrow (v4\_waybel\_4\ (k2\_waybel\_4\ X0)\ X0) \tag{15}$$

Assume the following.

$$\forall X0.((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge (l1\_orders\_2\ X0))) \Rightarrow (v3\_waybel\_4\ (k2\_waybel\_4\ X0)\ X0) \tag{16}$$

Assume the following.

$$\forall X0.((v4\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (v2\_waybel\_4\ (k2\_waybel\_4\ X0)\ X0) \tag{17}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (v1\_waybel\_4\ (k2\_waybel\_4\ X0)\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(v1\_orders\_2\ (k2\_yellow\_1\ X0)) \wedge (l1\_orders\_2\ (k2\_yellow\_1\ X0)) \tag{19}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (m1\_subset\_1\ (k2\_waybel\_4\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{20}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_yellow\_0\ X0) \wedge ((v1\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.(X1 = k3\_waybel\_4\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow ((v5\_waybel\_4\ X2\ X0) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))) \tag{21}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (k4\_yellow\_0\ X0 = k2\_yellow\_0\ X0\ k1\_xboole\_0) \tag{22}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))\Rightarrow(((v1\_waybel\_4\ X1\ X0)\wedge((v2\_waybel\_4\ X1\ X0)\wedge((v3\_waybel\_4\ X1\ X0)\wedge(v4\_waybel\_4\ X1\ X0))))\Rightarrow(v5\_waybel\_4\ X1\ X0))) \tag{23}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))\Rightarrow((v5\_waybel\_4\ X1\ X0)\Rightarrow((v1\_waybel\_4\ X1\ X0)\wedge((v2\_waybel\_4\ X1\ X0)\wedge((v3\_waybel\_4\ X1\ X0)\wedge(v4\_waybel\_4\ X1\ X0))))))) \tag{24}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{25}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_yellow\_0\ X0)\wedge((v1\_lattice3\ X0)\wedge(l1\_orders\_2\ X0))))))\Rightarrow(k4\_yellow\_0\ (k2\_yellow\_1\ (k3\_waybel\_4\ X0))=k2\_waybel\_4\ X0)$$