t8_waybel20 (TMNA678DeazPJgVz37j6X4yR46qZe68VZMT)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v5\_orders\_2 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ 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 $k3\_yellow\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_yellow\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_yellow\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_yellow\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_yellow\_0 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_lattice3 : \iota \Rightarrow o$ be given. Assume the following.

$$(k9\_xtuple\_0\ k1\_xboole\_0 = k1\_xboole\_0) \wedge (k10\_xtuple\_0\ k1\_xboole\_0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v5\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0))) \Rightarrow ((r1\_yellow\_0\ X0\ k1\_xboole\_0) \Rightarrow (v1\_yellow\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_yellow\_0\ X0) \wedge (l1\_orders\_2\ X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v5\_orders\_2\ X1) \wedge ((v1\_yellow\_0\ X1) \wedge (l1\_orders\_2\ X1)))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X1)))) \Rightarrow (((v3\_lattice3\ (k3\_yellow\_3\ X0\ X1)) \vee (r1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2)) \Rightarrow (k1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2 = k7\_yellow\_3\ X0\ X1\ (k1\_yellow\_0\ X0\ (k4\_yellow\_3\ X0\ X1\ X2))\ (k1\_yellow\_0\ X1\ (k5\_yellow\_3\ X0\ X1\ X2)))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X1)))))\Rightarrow(((v3\_lattice3\ (k3\_yellow\_3\ X0\ X1))\vee(r1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2))\Rightarrow(k1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2 = k7\_yellow\_3\ X0\ X1\ (k1\_yellow\_0\ X0\ (k4\_yellow\_3\ X0\ X1\ X2))\ (k1\_yellow\_0\ X1\ (k5\_yellow\_3\ X0\ X1\ X2))))))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X1))))\Rightarrow(((r1\_yellow\_0\ X0\ (k4\_yellow\_3\ X0\ X1\ X2))\wedge(r1\_yellow\_0\ X1\ (k5\_yellow\_3\ X0\ X1\ X2)))\Leftrightarrow(r1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l1\_orders\_2\ X0)\wedge((l1\_orders\_2\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X1))))))\Rightarrow(k5\_yellow\_3\ X0\ X1\ X2 = k10\_xtuple\_0\ X2) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l1\_orders\_2\ X0)\wedge((l1\_orders\_2\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X1))))))\Rightarrow(k4\_yellow\_3\ X0\ X1\ X2 = k9\_xtuple\_0\ X2) \tag{8}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X1))))\Rightarrow((r1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2)\Rightarrow(k1\_yellow\_0\ (k3\_yellow\_3\ X0\ X1)\ X2 = k7\_yellow\_3\ X0\ X1\ (k1\_yellow\_0\ X0\ (k4\_yellow\_3\ X0\ X1\ X2))\ (k1\_yellow\_0\ X1\ (k5\_yellow\_3\ X0\ X1\ X2))))))$$