t25_waybel23 (TMNbYuTja4zpcihQ1poHoaRTAgp5o8MjSiS)

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Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v5\_orders\_2 : \iota \Rightarrow o$ be given. Let $v2\_lattice3 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_waybel23 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k5\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow ((\neg v2\_struct\_0\ (k5\_yellow\_0\ X0\ X1)) \wedge ((v1\_orders\_2\ (k5\_yellow\_0\ X0\ X1)) \wedge (v4\_yellow\_0\ (k5\_yellow\_0\ X0\ X1)\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_orders\_2\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow ((v1\_orders\_2\ (k5\_yellow\_0\ X0\ X1)) \wedge ((v4\_yellow\_0\ (k5\_yellow\_0\ X0\ X1)\ X0) \wedge (m1\_yellow\_0\ (k5\_yellow\_0\ X0\ X1)\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((v1\_waybel23\ X1\ X0) \Leftrightarrow (v5\_yellow\_0\ (k5\_yellow\_0\ X0\ X1)\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow ((v2\_lattice3\ X0) \Rightarrow (\neg v2\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v2\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))) \Rightarrow (\forall X1.(m1\_yellow\_0\ X1\ X0) \Rightarrow (((\neg v2\_struct\_0\ X1) \wedge ((v4\_yellow\_0\ X1\ X0) \wedge (v5\_yellow\_0\ X1\ X0))) \Rightarrow ((\neg v2\_struct\_0\ X1) \wedge ((v2\_lattice3\ X1) \wedge ((v4\_yellow\_0\ X1\ X0) \wedge (v5\_yellow\_0\ X1\ X0)))))) \tag{5}$$

Theorem 1

$$\forall X0.((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v2\_lattice3\ X0)\wedge(l1\_orders\_2\ X0))))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_waybel23\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow(v2\_lattice3\ (k5\_yellow\_0\ X0\ X1)))$$