t51_waybel_4 (TMPR3a3JzETqtRPqo2goRRn8CS9kdnsTxpu)

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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 $v2\_lattice3 : \iota \Rightarrow o$ be given. Let $v3\_waybel\_3 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v8\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_waybel\_4 : \iota \Rightarrow \iota$ be given. Let $v3\_lattice3 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v5\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v4\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v25\_waybel\_0 : \iota \Rightarrow o$ 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 $v1\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v24\_waybel\_0 : \iota \Rightarrow o$ be given. Let $v2\_waybel\_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.((v5\_waybel\_4\ X3\ X0) \wedge ((v6\_waybel\_4\ X3\ X0) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))) \Rightarrow (\neg(r1\_waybel\_3\ X0\ X1\ X2) \wedge ((X1 \neq X2) \wedge (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(k1\_domain\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X4 \in X3) \wedge ((k1\_domain\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X4\ X2 \in X3) \wedge (X1 \neq X4)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge ((m1\_subset\_1\ X2\ X0) \wedge (m1\_subset\_1\ X3\ X1)))) \Rightarrow (k1\_domain\_1\ X0\ X1\ X2\ X3 = k4\_tarski\ X2\ X3) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_yellow\_0\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_waybel\_3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(v6\_waybel\_4\ (k1\_waybel\_4\ X0)\ X0) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_yellow\_0\ X0)\wedge(l1\_orders\_2\ X0)))))\Rightarrow(v4\_waybel\_4\ (k1\_waybel\_4\ X0)\ X0) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v25\_waybel\_0\ X0)\wedge(l1\_orders\_2\ X0))))))\Rightarrow(v3\_waybel\_4\ (k1\_waybel\_4\ X0)\ X0) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))))\Rightarrow(v2\_waybel\_4\ (k1\_waybel\_4\ X0)\ X0) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))))\Rightarrow(v1\_waybel\_4\ (k1\_waybel\_4\ X0)\ X0) \tag{8}$$

Assume the following.

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

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(m1\_subset\_1\ (k1\_waybel\_4\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{10}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))\Rightarrow((v8\_waybel\_4\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\neg(k4\_tarski\ X2\ X3\in X1)\wedge((X2\neq X3)\wedge(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\neg(k4\_tarski\ X2\ X4\in X1)\wedge((k4\_tarski\ X4\ X3\in X1)\wedge(X2\neq X4)))))))))) \tag{11}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))\Rightarrow((X1 = k1\_waybel\_4\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((k1\_domain\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X2\ X3 \in X1)\Leftrightarrow(r1\_waybel\_3\ X0\ X2\ X3))))))) \tag{12}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(v3\_waybel\_3\ X0)))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v24\_waybel\_0\ X0)\wedge(v2\_waybel\_3\ X0))))) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))\Rightarrow(((v1\_waybel\_4\ X1\ X0)\wedge((v2\_waybel\_4\ X1\ X0)\wedge((v3\_waybel\_4\ X1\ X0)\wedge(v4\_waybel\_4\ X1\ X0))))\Rightarrow(v5\_waybel\_4\ X1\ X0))) \tag{14}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v1\_yellow\_0\ X0)\wedge(v24\_waybel\_0\ X0))))))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge(v3\_lattice3\ X0))))) \tag{16}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(v3\_lattice3\ X0)))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v24\_waybel\_0\ X0)\wedge(v25\_waybel\_0\ X0))))) \tag{17}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_yellow\_0\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_waybel\_3\ X0)\wedge(l1\_orders\_2\ X0))))))))\Rightarrow(v8\_waybel\_4\ (k1\_waybel\_4\ X0)\ X0)$$