t38_waybel34 (TMXmT53pEsW2GzyM2AKy1kmWAXqvegRzqQX)

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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 $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v7\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_yellow\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_waybel34 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v3\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v22\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v18\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v17\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_waybel34 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_waybel34 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0))))) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))) \Rightarrow ((v7\_waybel\_1\ X1\ X0) \Rightarrow (v3\_waybel\_1\ (k1\_waybel\_1\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0\ (k3\_waybel\_1\ X0\ X0\ X1)\ (k2\_waybel\_1\ X0\ X0\ X1))\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v7\_waybel\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))))\Rightarrow((v4\_waybel\_0\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0)\Leftrightarrow(v22\_waybel\_0\ (k3\_waybel\_1\ X0\ X0\ X1)\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v7\_waybel\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))))\Rightarrow((v18\_waybel\_0\ (k2\_waybel\_1\ X0\ X0\ X1)\ X0\ (k1\_yellow\_2\ X0\ X0\ X1))\wedge((v17\_waybel\_0\ (k3\_waybel\_1\ X0\ X0\ X1)\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0)\wedge((r2\_funct\_2\ (u1\_struct\_0\ (k1\_yellow\_2\ X0\ X0\ X1))\ (u1\_struct\_0\ X0)\ (k2\_waybel34\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0\ (k2\_waybel\_1\ X0\ X0\ X1))\ (k3\_waybel\_1\ X0\ X0\ X1))\wedge(r2\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_yellow\_2\ X0\ X0\ X1))\ (k1\_waybel34\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0\ (k3\_waybel\_1\ X0\ X0\ X1))\ (k2\_waybel\_1\ X0\ X0\ X1)))))) \tag{3}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v4\_yellow\_0\ X1\ X0)\wedge((v7\_yellow\_0\ X1\ X0)\wedge(m1\_yellow\_0\ X1\ X0))))\Rightarrow((v3\_orders\_2\ X1)\wedge((v4\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge((v1\_lattice3\ X1)\wedge((v2\_lattice3\ X1)\wedge((v3\_lattice3\ X1)\wedge(l1\_orders\_2\ X1)))))))) \tag{4}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((v3\_orders\_2\ X1)\wedge((v4\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge((v1\_lattice3\ X1)\wedge((v2\_lattice3\ X1)\wedge((v3\_lattice3\ X1)\wedge(l1\_orders\_2\ X1)))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge((v17\_waybel\_0\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))))))\Rightarrow((v22\_waybel\_0\ X2\ X0\ X1)\Rightarrow(v1\_waybel34\ (k1\_waybel34\ X0\ X1\ X2)\ X1\ X0)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))))\wedge((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v7\_waybel\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))))\Rightarrow((v1\_orders\_2\ (k1\_yellow\_2\ X0\ X0\ X1))\wedge((v4\_yellow\_0\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0)\wedge(v7\_yellow\_0\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_orders\_2\ X1))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))))\Rightarrow((\neg v2\_struct\_0\ (k1\_yellow\_2\ X0\ X1\ X2))\wedge((v1\_orders\_2\ (k1\_yellow\_2\ X0\ X1\ X2))\wedge(v4\_yellow\_0\ (k1\_yellow\_2\ X0\ X1\ X2)\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_orders\_2\ X1))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))))\Rightarrow((v1\_funct\_1\ (k3\_waybel\_1\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k3\_waybel\_1\ X0\ X1\ X2)\ (u1\_struct\_0\ (k1\_yellow\_2\ X0\ X1\ X2))\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ (k3\_waybel\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k1\_yellow\_2\ X0\ X1\ X2))\ (u1\_struct\_0\ X1)))))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_orders\_2\ X1))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))))\Rightarrow((v1\_funct\_1\ (k2\_waybel\_1\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k2\_waybel\_1\ X0\ X1\ X2)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_yellow\_2\ X0\ X1\ X2)))\wedge(m1\_subset\_1\ (k2\_waybel\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_yellow\_2\ X0\ X1\ X2))))))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_orders\_2\ X1))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))))\Rightarrow((v1\_orders\_2\ (k1\_yellow\_2\ X0\ X1\ X2))\wedge((v4\_yellow\_0\ (k1\_yellow\_2\ X0\ X1\ X2)\ X1)\wedge(m1\_yellow\_0\ (k1\_yellow\_2\ X0\ X1\ X2)\ X1))) \tag{10}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge(l1\_orders\_2\ X0))))))\Rightarrow(\forall X1.((v3\_orders\_2\ X1)\wedge((v4\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge((v1\_lattice3\ X1)\wedge((v2\_lattice3\ X1)\wedge(l1\_orders\_2\ X1))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))\Rightarrow(((v3\_lattice3\ X0)\wedge(v17\_waybel\_0\ X2\ X0\ X1))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X0))))))\Rightarrow((X3 = k1\_waybel34\ X0\ X1\ X2)\Leftrightarrow(v3\_waybel\_1\ (k1\_waybel\_1\ X0\ X1\ X2\ X3)\ X0\ X1)))))) \tag{11}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.(m1\_yellow\_0\ X1\ X0)\Rightarrow((v7\_yellow\_0\ X1\ X0)\Rightarrow(\neg v2\_struct\_0\ X1))) \tag{12}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v2\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{13}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v7\_waybel\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))))\Rightarrow((v4\_waybel\_0\ (k1\_yellow\_2\ X0\ X0\ X1)\ X0)\Rightarrow(v1\_waybel34\ (k2\_waybel\_1\ X0\ X0\ X1)\ X0\ (k1\_yellow\_2\ X0\ X0\ X1))))$$