t31_waybel21 (TMN7kb4zrjtMgmrhyLjMTPgjybpSBT22os2)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. 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 $l1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_orders\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_waybel\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v7\_waybel\_0 : \iota \Rightarrow o$ be given. Let $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v6\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v7\_waybel\_0\ X1) \wedge (l1\_waybel\_0\ X1\ X0)))) \Rightarrow (\forall X2.(m2\_yellow\_6\ X2\ X0\ X1) \Rightarrow (r1\_tarski\ (k10\_yellow\_6\ X0\ X1)\ (k10\_yellow\_6\ X0\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge (l1\_waybel\_9\ X0)))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_pre\_topc\ X1) \wedge ((v3\_orders\_2\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v5\_orders\_2\ X1) \wedge (l1\_waybel\_9\ X1)))))) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v2\_waybel\_0\ X2\ X0) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)) \wedge ((v5\_orders\_3\ X3\ X0\ X1) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))) \Rightarrow (\forall X4.((\neg v1\_xboole\_0\ X4) \wedge ((v2\_waybel\_0\ X4\ X1) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))))) \Rightarrow ((X4 = k7\_relset\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)\ X3\ X2) \Rightarrow (m2\_yellow\_6\ (k6\_waybel\_9\ X0\ X1\ X3\ (k3\_yellow\_9\ X0\ X2))\ X1\ (k3\_yellow\_9\ X1\ X4))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge (l1\_orders\_2\ X0)))\wedge((\neg v1\_xboole\_0\ X1)\wedge((v2\_waybel\_0\ X1\ X0)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))))\Rightarrow((\neg v2\_struct\_0\ (k3\_yellow\_9\ X0\ X1))\wedge((v6\_waybel\_0\ (k3\_yellow\_9\ X0\ X1)\ X0)\wedge(v7\_waybel\_0\ (k3\_yellow\_9\ X0\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v4\_orders\_2\ X0)\wedge (l1\_orders\_2\ X0)))\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow((\neg v2\_struct\_0\ (k3\_yellow\_9\ X0\ X1))\wedge((v4\_orders\_2\ (k3\_yellow\_9\ X0\ X1))\wedge(v6\_waybel\_0\ (k3\_yellow\_9\ X0\ X1)\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_waybel\_9\ X0)\Rightarrow((l1\_pre\_topc\ X0)\wedge(l1\_orders\_2\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow((\neg v2\_struct\_0\ (k3\_yellow\_9\ X0\ X1))\wedge((v6\_waybel\_0\ (k3\_yellow\_9\ X0\ X1)\ X0)\wedge(l1\_waybel\_0\ (k3\_yellow\_9\ X0\ X1)\ X0))) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge(l1\_waybel\_9\ X0))))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_pre\_topc\ X1)\wedge((v3\_orders\_2\ X1)\wedge((v4\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_waybel\_9\ X1))))))\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge((v2\_waybel\_0\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge((v5\_orders\_3\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))))\Rightarrow(\forall X4.((\neg v1\_xboole\_0\ X4)\wedge((v2\_waybel\_0\ X4\ X1)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))))\Rightarrow((X4 = k7\_relset\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)\ X3\ X2)\Rightarrow(r1\_tarski\ (k10\_yellow\_6\ X1\ (k3\_yellow\_9\ X1\ X4))\ (k10\_yellow\_6\ X1\ (k6\_waybel\_9\ X0\ X1\ X3\ (k3\_yellow\_9\ X0\ X2))))))))$$