

## t9\_waybel29

(TMMz29dLooCNkQGABHNMScDsDww3B3uy1NF)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  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  $v24\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $v4\_waybel11 : \iota \Rightarrow o$  be given. Let  $l1\_waybel\_9 : \iota \Rightarrow o$  be given. Let  $v4\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_waybel24 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_yellow\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\
& X0))) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v2\_pre\_topc X1) \wedge ((v3\_orders\_2 \\
& X1) \wedge ((v4\_orders\_2 X1) \wedge ((v5\_orders\_2 X1) \wedge ((v24\_waybel\_0 X1) \wedge \\
& ((v4\_waybel11 X1) \wedge (l1\_waybel\_9 X1)))))))) \Rightarrow (\forall X2. ((\neg v1\_xboole\_0 \\
& X2) \wedge ((v1\_waybel\_0 X2 (k3\_waybel24 X0 X1)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\
& (u1\_struct\_0 (k3\_waybel24 X0 X1)))))) \Rightarrow ((v1\_funct\_1 (k1\_yellow\_0 \\
& (k6\_yellow\_1 (u1\_struct\_0 X0) X1) X2)) \wedge ((v1\_funct\_2 (k1\_yellow\_0 \\
& (k6\_yellow\_1 (u1\_struct\_0 X0) X1) X2) (u1\_struct\_0 X0) (u1\_struct\_0 \\
& X1)) \wedge ((v5\_pre\_topc (k1\_yellow\_0 (k6\_yellow\_1 (u1\_struct\_0 X0) \\
& X1) X2) X0 X1) \wedge (m1\_subset\_1 (k1\_yellow\_0 (k6\_yellow\_1 (u1\_struct\_0 \\
& X0) X1) X2) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 \\
& X1))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0 X1)\wedge(l1\_orders\_2 X1))\Rightarrow ((\neg v2\_struct\_0 (k6\_yellow\_1 X0 X1))\wedge(v1\_orders\_2 (k6\_yellow\_1 X0 X1))) \quad (3)$$

Assume the following.

$$\forall X0.(l1\_waybel\_9 X0)\Rightarrow((l1\_pre\_topc X0)\wedge(l1\_orders\_2 X0)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(l1\_orders\_2 X1)\Rightarrow((v1\_orders\_2 (k6\_yellow\_1 X0 X1))\wedge(l1\_orders\_2 (k6\_yellow\_1 X0 X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc X0)\wedge((\neg v2\_struct\_0 X1)\wedge(l1\_waybel\_9 X1)))\Rightarrow((v1\_orders\_2 (k3\_waybel24 X0 X1))\wedge(l1\_orders\_2 (k3\_waybel24 X0 X1))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge(l1\_orders\_2 X0))\Rightarrow(\forall X1.(m1\_yellow\_0 X1 X0)\Rightarrow((v4\_waybel\_0 X1 X0)\Leftrightarrow(\forall X2.((v1\_waybel\_0 X2 X1)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X1))))\Rightarrow((r1\_yellow\_0 X0 X2)\Rightarrow((X2 = k1\_xboole\_0)\vee(k1\_yellow\_0 X0 X2 \in u1\_struct\_0 X1)))))) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0 X1)\wedge(l1\_waybel\_9 X1))\Rightarrow(\forall X2.((v1\_orders\_2 X2)\wedge(l1\_orders\_2 X2))\Rightarrow((X2 = k3\_waybel24 X0 X1)\Leftrightarrow(((v4\_yellow\_0 X2 (k6\_yellow\_1 (u1\_struct\_0 X0) X1))\wedge(m1\_yellow\_0 X2 (k6\_yellow\_1 (u1\_struct\_0 X0) X1)))\wedge(\forall X3.(X3 \in u1\_struct\_0 X2)\Leftrightarrow(\exists X4.((v1\_funct\_1 X4)\wedge((v1\_funct\_2 X4 (u1\_struct\_0 X0) (u1\_struct\_0 X1))\wedge(m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X1))))))\wedge((X3 = X4)\wedge(v5\_pre\_topc X4 X0 X1)))))))))) \quad (8)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v2\_pre\_topc X0)\wedge(l1\_pre\_topc X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0 X1)\wedge((v2\_pre\_topc X1)\wedge((v3\_orders\_2 X1)\wedge((v4\_orders\_2 X1)\wedge((v5\_orders\_2 X1)\wedge((v24\_waybel\_0 X1)\wedge((v4\_waybel11 X1)\wedge(l1\_waybel\_9 X1))))))))\Rightarrow((v4\_waybel\_0 (k3\_waybel24 X0 X1) (k6\_yellow\_1 (u1\_struct\_0 X0) X1))\wedge(m1\_yellow\_0 (k3\_waybel24 X0 X1) (k6\_yellow\_1 (u1\_struct\_0 X0) X1))))$$