

# t7\_waybel11

(TMTHVQV975NqoR7BcLLcUe9MSsAubXSuiLe)

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Let  $v2\_struct.0 : \iota \Rightarrow o$  be given. Let  $v3\_orders.2 : \iota \Rightarrow o$  be given. Let  $v4\_orders.2 : \iota \Rightarrow o$  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  $m1\_subset.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct.0 : \iota \Rightarrow \iota$  be given. Let  $v4\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_waybel11 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v12\_waybel.0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_orders.2 : \iota \Rightarrow o$  be given. Let  $v13\_waybel.0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_waybel11 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset.1\ X1\ (k1\_zfmisc.1 \\ (u1\_struct.0\ X0))) \Rightarrow ((v4\_pre\_topc\ X1\ X0) \Leftrightarrow (v3\_pre\_topc\ (k3\_subset.1 \\ (u1\_struct.0\ X0)\ X1)\ X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset.1\ X1\ (k1\_zfmisc.1\ X0)) \Rightarrow (k3\_subset.1\ X0\ (k3\_subset.1\ X0\ X1) = X1) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2\_struct.0\ X0) \wedge (l1\_orders.2\ X0)) \wedge \\ ((v13\_waybel.0\ X1\ X0) \wedge (m1\_subset.1\ X1\ (k1\_zfmisc.1\ (u1\_struct.0 \\ X0)))) \Rightarrow (v12\_waybel.0\ (k3\_subset.1\ (u1\_struct.0\ X0)\ X1)\ X0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2\_struct.0\ X0) \wedge (l1\_orders.2\ X0)) \wedge \\ ((v12\_waybel.0\ X1\ X0) \wedge (m1\_subset.1\ X1\ (k1\_zfmisc.1\ (u1\_struct.0 \\ X0)))) \Rightarrow (v13\_waybel.0\ (k3\_subset.1\ (u1\_struct.0\ X0)\ X1)\ X0) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2\_struct.0\ X0) \wedge ((v3\_orders.2\ X0) \wedge \\ (l1\_orders.2\ X0))) \wedge ((v2\_waybel11\ X1\ X0) \wedge (m1\_subset.1\ X1\ (k1\_zfmisc.1 \\ (u1\_struct.0\ X0)))) \Rightarrow (v1\_waybel11\ (k3\_subset.1\ (u1\_struct.0 \\ X0)\ X1)\ X0) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0 X0)\wedge((v3\_orders\_2 X0)\wedge(l1\_orders\_2 X0)))\wedge((v1\_waybel11 X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))))\Rightarrow(v2\_waybel11 (k3\_subset\_1 (u1\_struct\_0 X0) X1) X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_waybel\_9 X0)\Rightarrow((l1\_pre\_topc X0)\wedge(l1\_orders\_2 X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(m1\_subset\_1 (k3\_subset\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v3\_orders\_2 X0)\wedge(l1\_waybel\_9 X0)))\Rightarrow((v4\_waybel11 X0)\Leftrightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\Rightarrow((v3\_pre\_topc X1 X0)\Leftrightarrow((v1\_waybel11 X1 X0)\wedge(v13\_waybel\_0 X1 X0)))) \quad (9)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v3\_orders\_2 X0)\wedge((v4\_orders\_2 X0)\wedge((v24\_waybel\_0 X0)\wedge((v4\_waybel11 X0)\wedge(l1\_waybel\_9 X0))))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\Rightarrow((v4\_pre\_topc X1 X0)\Leftrightarrow((v2\_waybel11 X1 X0)\wedge(v12\_waybel\_0 X1 X0)))$$