

# t25\_waybel33

## (TMQ1uNX51svieFy83WGv2PaorpiwL1EStAd)

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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  $v1\_waybel33 : \iota \Rightarrow o$  be given. Let  $m1\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v2\_waybel19 : \iota \Rightarrow o$  be given. Let  $m2\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_waybel19 : \iota \Rightarrow \iota$  be given. Let  $k4\_waybel28 : \iota \Rightarrow \iota$  be given. Let  $v24\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $v25\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  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  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $l1\_waybel\_9 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge (l1\_orders\_2 X0))))))) \Rightarrow (r1\_tarski (k2\_waybel19 X0) (k4\_waybel28 X0)) \quad (1)$$

Assume the following.

$$\forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v24\_waybel\_0 X0) \wedge ((v25\_waybel\_0 X0) \wedge ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.((v1\_waybel33 X1) \wedge (m1\_yellow\_9 X1 X0)) \Rightarrow (k4\_waybel28 X0 = u1\_pre\_topc X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0))) \Rightarrow (\forall X2. \forall X3. (g1\_orders\_2 X0 X1 = g1\_orders\_2 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (u1\_orders\_2 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_yellow\_9 X1 X0) \Rightarrow (l1\_waybel\_9 X1)) \quad (5)$$

Assume the following.

$$\forall X0.(l1\_waybel\_9 X0) \Rightarrow ((l1\_pre\_topc X0) \wedge (l1\_orders\_2 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ (l1\_orders\_2 X0))))))) \Rightarrow (m1\_subset\_1 (k2\_waybel19 X0) (k1\_zfmisc\_1 \\ (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.((v2\_pre\_topc X1) \wedge (l1\_pre\_topc X1)) \Rightarrow ((m2\_yellow\_9 X1 X0) \Leftrightarrow ((u1\_struct\_0 X0 = u1\_struct\_0 X1) \wedge (r1\_tarSKI (u1\_pre\_topc X0) (u1\_pre\_topc X1)))))) \quad (8)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(l1\_waybel\_9 X1) \Rightarrow ((m1\_yellow\_9 X1 X0) \Leftrightarrow (g1\_orders\_2 (u1\_struct\_0 X1) (u1\_orders\_2 X1) = g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 X0)))) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow ((X1 = k2\_waybel19 X0) \Leftrightarrow (\forall X2. \\ ((v2\_pre\_topc X2) \wedge ((v2\_waybel19 X2) \wedge (m1\_yellow\_9 X2 X0)) \Rightarrow ( \\ X1 = u1\_pre\_topc X2)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1.(m1\_yellow\_9 X1 X0) \Rightarrow (\neg v2\_struct\_0 X1)) \quad (11)$$

Assume the following.

$$\forall X0.(l1\_waybel\_9 X0) \Rightarrow (((\neg v2\_struct\_0 X0) \wedge (v1\_waybel33 X0)) \Rightarrow ((\neg v2\_struct\_0 X0) \wedge (v2\_pre\_topc X0))) \quad (12)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v1\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_orders\_2 X0) \Rightarrow & (((\neg v2\_struct\_0 X0) \wedge (v3\_orders\_2 \\ X0) \wedge (v3\_lattice3 X0)) \Rightarrow & ((\neg v2\_struct\_0 X0) \wedge (v3\_orders\_2 X0) \wedge \\ & ((v24\_waybel\_0 X0) \wedge (v25\_waybel\_0 X0)))) \end{aligned} \quad (14)$$

**Theorem 1**

$$\begin{aligned} \forall X0. ((v3\_orders\_2 X0) \wedge (v4\_orders\_2 X0) \wedge (v5\_orders\_2 \\ X0) \wedge (v1\_lattice3 X0) \wedge (v2\_lattice3 X0) \wedge (v3\_lattice3 X0) \wedge \\ (l1\_orders\_2 X0)) \Rightarrow (\forall X1. ((v1\_waybel33 X1) \wedge (m1\_yellow\_9 \\ X1 X0)) \Rightarrow (\forall X2. ((v2\_pre\_topc X2) \wedge (v2\_waybel19 X2) \wedge (m1\_yellow\_9 \\ X2 X0)) \Rightarrow (m2\_yellow\_9 X1 X2))) \end{aligned}$$