

## t15\_waybel23

(TMPyhF45rEhU69Jrq5uAzpwEiuE4nCzSwBH)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  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  $v1\_waybel23 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k5\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_orders\_2 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow ((v1\_orders\_2 (k5\_yellow\_0 X0 X1)) \wedge ((v4\_yellow\_0 (k5\_yellow\_0 X0 X1) X0) \wedge (m1\_yellow\_0 (k5\_yellow\_0 X0 X1) X0))) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v1\_waybel23 X1 X0) \Leftrightarrow (v5\_yellow\_0 (k5\_yellow\_0 X0 X1) X0))) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. (m1\_yellow\_0 X1 X0) \Rightarrow ((v5\_yellow\_0 X1 X0) \Leftrightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (((X2 \in u1\_struct\_0 X1) \wedge ((X3 \in u1\_struct\_0 X1) \wedge (r2\_yellow\_0 X0 (k7\_domain\_1 (u1\_struct\_0 X0) X2 X3)))) \Rightarrow (k2\_yellow\_0 X0 (k7\_domain\_1 (u1\_struct\_0 X0) X2 X3) \in u1\_struct\_0 X1)))))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (\forall X2.((v1\_orders\_2 X2) \wedge ((v4\_yellow\_0 \\ X2 X0) \wedge (m1\_yellow\_0 X2 X0))) \Rightarrow ((X2 = k5\_yellow\_0 X0 X1) \Leftrightarrow (u1\_struct\_0 \\ X2 = X1)))) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v1\_waybel23 \\ X1 X0) \Leftrightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (((X2 \in X1) \wedge ((X3 \in X1) \wedge (r2\_yellow\_0 \\ X0 (k7\_domain\_1 (u1\_struct\_0 X0) X2 X3)))) \Rightarrow (k2\_yellow\_0 X0 (k7\_domain\_1 \\ (u1\_struct\_0 X0) X2 X3) \in X1)))))) \end{aligned}$$