

## t13\_waybel12

(TMJ3XLnhapgmAKG6CMyret2QLgQm2AQSPKv)

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Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v2\_yellow\_0 : \iota \Rightarrow o$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $k2\_yellow\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_yellow\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_yellow\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. ((v5\_orders\_2 X0) \wedge ((v2\_yellow\_0 X0) \wedge ((v1\_lattice3 X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (r1\_tarski (k2\_yellow\_4 X0 X1 (k6\_domain\_1 (u1\_struct\_0 X0) (k4\_yellow\_0 X0))) (k6\_domain\_1 (u1\_struct\_0 X0) (k4\_yellow\_0 X0)))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (k6\_domain\_1 X0 X1 = k1\_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge (l1\_orders\_2 X0))) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \Rightarrow (k2\_yellow\_4 X0 X1 X2 = k1\_yellow\_4 X0 X1 X2) \quad (4)$$

Assume the following.

$$\exists X0. v1\_xboole\_0 X0 \quad (5)$$

Assume the following.

$$\forall X0. \neg v1\_xboole\_0 (k1\_tarski X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge(l1\_orders\_2 X0))\wedge(((\neg v1\_xboole\_0 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\wedge((\neg v1\_xboole\_0 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))))\Rightarrow(\neg v1\_xboole\_0 (k1\_yellow\_4 X0 X1 X2))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 X0))\Rightarrow(m1\_subset\_1 (k6\_domain\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0)\Rightarrow(m1\_subset\_1 (k4\_yellow\_0 X0) (u1\_struct\_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow(X2 \in X1)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(X2 = X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1\_tarski X0 X1)\wedge(r1\_tarski X1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (13)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0)\Rightarrow((v1\_lattice3 X0)\Rightarrow(\neg v2\_struct\_0 X0)) \quad (14)$$

**Theorem 1**

$$\forall X0.(((v5\_orders\_2 X0)\wedge((v2\_yellow\_0 X0)\wedge((v1\_lattice3 X0)\wedge(l1\_orders\_2 X0))))\Rightarrow(\forall X1.((\neg v1\_xboole\_0 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\Rightarrow(k2\_yellow\_4 X0 X1 (k6\_domain\_1 (u1\_struct\_0 X0) (k4\_yellow\_0 X0)) = k6\_domain\_1 (u1\_struct\_0 X0) (k4\_yellow\_0 X0))))$$