

## t6\_waybel\_7

(TMR7A8EkyrdN2tM1PW074vXGU9MEU1KJ12R)

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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  $k3\_yellow.1 : \iota \Rightarrow \iota$  be given. Let  $v12\_waybel.0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_orders.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_setfam.1 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct.0 : \iota \Rightarrow o$  be given. Let  $v3\_orders.2 : \iota \Rightarrow o$  be given. Let  $l1\_orders.2 : \iota \Rightarrow o$  be given. Let  $r1\_orders.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_orders.2 : \iota \Rightarrow o$  be given. Let  $v4\_orders.2 : \iota \Rightarrow o$  be given. Let  $v5\_orders.2 : \iota \Rightarrow o$  be given. 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.

$$\forall X0. \forall X1. (m1\_subset.1 X0 (k1\_zfmisc.1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset.1 X1 (u1\_struct.0 (k3\_yellow.1 X0))) \Rightarrow (\forall X2. (m1\_subset.1 X2 (u1\_struct.0 (k3\_yellow.1 X0))) \Rightarrow ((r3\_orders.2 (k3\_yellow.1 X0) X1 X2) \Leftrightarrow (r1\_tarski X1 X2))) \quad (3)$$

Assume the following.

$$\forall X0. u1\_struct.0 (k3\_yellow.1 X0) = k9\_setfam.1 X0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v2\_struct.0 X0) \wedge ((v3\_orders.2 X0) \wedge (l1\_orders.2 X0))) \wedge ((m1\_subset.1 X1 (u1\_struct.0 X0)) \wedge (m1\_subset.1 X2 (u1\_struct.0 X0)))) \Rightarrow ((r3\_orders.2 X0 X1 X2) \Leftrightarrow (r1\_orders.2 X0 X1 X2)) \quad (6)$$

Assume the following.

$$\forall X0.k9\_setfam.1 X0 = k1\_zfmisc.1 X0 \quad (7)$$

Assume the following.

$$\forall X0.(\neg v2\_struct.0 (k3\_yellow.1 X0)) \wedge ((v1\_orders.2 (k3\_yellow.1 X0)) \wedge ((v3\_orders.2 (k3\_yellow.1 X0)) \wedge ((v4\_orders.2 (k3\_yellow.1 X0)) \wedge (v5\_orders.2 (k3\_yellow.1 X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_orders.2 (k3\_yellow.1 X0)) \wedge (l1\_orders.2 (k3\_yellow.1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l1\_orders.2 X0) \Rightarrow (\forall X1.(m1\_subset.1 X1 (k1\_zfmisc.1 (u1\_struct.0 X0))) \Rightarrow ((v12\_waybel.0 X1 X0) \Leftrightarrow (\forall X2.(m1\_subset.1 X2 (u1\_struct.0 X0)) \Rightarrow (\forall X3.(m1\_subset.1 X3 (u1\_struct.0 X0)) \Rightarrow (((X2 \in X1) \wedge (r1\_orders.2 X0 X3 X2)) \Rightarrow (X3 \in X1)))))) \quad (10)$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset.1 X1 (k1\_zfmisc.1 (u1\_struct.0 (k3\_yellow.1 X0)))) \Rightarrow ((v12\_waybel.0 X1 (k3\_yellow.1 X0)) \Leftrightarrow (\forall X2.\forall X3.((r1\_tarski X2 X3) \wedge (X3 \in X1)) \Rightarrow (X2 \in X1)))$$