

t8\_waybel30 (TM-  
FiQekS5Ex1sJUKKTkxxQ5jPWbiF4NCfRk)

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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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_waybel11 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1\_xboole\_0 X0) \wedge ((X0 \neq X1) \wedge (v1\_xboole\_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0. k4\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k7\_subset\_1 X0 X1 X2 = k4\_xboole\_0 X1 X2) \quad (5)$$

Assume the following.

$$\forall X0. \exists X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \wedge (v1\_xboole\_0 X1) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_orders\_2 X0) \wedge ((v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (v1\_xboole\_0 (k4\_waybel\_0 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge (l1\_orders\_2 X0))) \Rightarrow (m1\_subset\_1 (k5\_waybel11 X0) (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (9)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota. v1\_xboole\_0 X0) \quad (10)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (v1\_finset\_1 X0) \quad (11)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge (l1\_orders\_2 X0))) \Rightarrow (r1\_tarski (k5\_waybel11 X0) (ReplSep2 (toset (\lambda X1 : \iota. \\ & \quad m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) (\lambda X1 : \iota. \\ & \quad toset (\lambda X2 : \iota. m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \\ & \quad (\lambda X1 : \iota. \lambda X2 : \iota. (X1 \in k5\_waybel11 X0) \wedge (v1\_finset\_1 X2)) \\ & \quad (\lambda X1 : \iota. \lambda X2 : \iota. k7\_subset\_1 (u1\_struct\_0 X0) X1 (k4\_waybel\_0 \\ & \quad \quad X0 X2)))) \end{aligned}$$