

t15\_wellord1  
(TMQrKzKQfcKi92oryB1ENxujsoUcPC6GX2c)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_2 : \iota \Rightarrow o$  be given. Let  $k2\_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k4\_tarski X0 X1 \in k2\_zfmisc\_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow ((X0 \in k1\_relat\_1 (k2\_wellord1 X2 X1)) \Rightarrow ((X0 \in k1\_relat\_1 X2) \wedge (X0 \in X1))) \quad (2)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 X0) \Rightarrow ((v1\_relat\_2 X0) \Leftrightarrow (\forall X1. (X1 \in k1\_relat\_1 X0) \Rightarrow (k4\_tarski X1 X1 \in X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 X0) \Rightarrow (v1\_relat\_1 (k2\_wellord1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 X0) \Rightarrow (\forall X1. k2\_wellord1 X0 X1 = k3\_xboole\_0 X0 (k2\_zfmisc\_1 X1 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k3\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (6)$$

**Theorem 1**

$$\forall X0. \forall X1. (v1\_relat\_1 X1) \Rightarrow ((v1\_relat\_2 X1) \Rightarrow (v1\_relat\_2 (k2\_wellord1 X1 X0)))$$