

# t3\_wellord1 (TMKMQLFaPEmxHXLtxCUNA- tRnHx6ApKjHNVQ)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_wellord1 : \iota \Rightarrow o$  be given. Let  $r1\_wellord1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(r1\_wellord1 X0 X1) \Leftrightarrow ( \\ \forall X2. \neg(r1\_tarski X2 X1) \wedge ((X2 \neq k1\_xboole\_0) \wedge (\forall X3. \\ \neg(X3 \in X2) \wedge (r1\_xboole\_0 (k1\_wellord1 X0 X3) X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_relat\_1 X0) \Rightarrow ((v1\_wellord1 X0) \Leftrightarrow (\forall X1. \neg( \\ r1\_tarski X1 (k1\_relat\_1 X0)) \wedge ((X1 \neq k1\_xboole\_0) \wedge (\forall X2. \\ \neg(X2 \in X1) \wedge (r1\_xboole\_0 (k1\_wellord1 X0 X2) X1)))))) \end{aligned} \quad (2)$$

## Theorem 1

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow ((v1\_wellord1 X0) \Leftrightarrow (r1\_wellord1 X0 \\ (k1\_relat\_1 X0)))$$