

t38\_wellord1  
(TMTq3h3dbt9pi1NSkvcErv1gHyg6RHCWuTid)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $r4\_wellord1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (r3\_wellord1 X0 X0 (k4\_relat\_1 (k1\_relat\_1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 (k4\_relat\_1 X0)) \wedge (v1\_funct\_1 (k4\_relat\_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(v1\_relat\_1 X1) \Rightarrow ((r4\_wellord1 X0 X1) \Leftrightarrow (\exists X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \wedge (r3\_wellord1 X0 X1 X2)))) \quad (3)$$

**Theorem 1**  $\forall X0.(v1\_relat\_1 X0) \Rightarrow (r4\_wellord1 X0 X0)$ .