

t21_ordinal6 (TMTbVSTJoS- roW7M5ynVsGWPSNdRJ7RM1j3v)

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Let $r3_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_wellord2 : \iota \Rightarrow \iota$ be given. Let $k1_ordinal6 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal6 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r4_wellord1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_ordinal6 : \iota \Rightarrow o$ be given. Let $v2_wellord1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_wellord2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow ((r4_wellord1 X0 X1) \Rightarrow (r4_wellord1 X1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_ordinal6 X0) \Rightarrow ((v1_relat_1 (k1_wellord2 X0)) \wedge (v2_wellord1 (k1_wellord2 X0))) \quad (2)$$

Assume the following.

$$\forall X0.v1_ordinal6 (k2_ordinal1 X0) \quad (3)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k2_ordinal6 X0)) \wedge ((v1_funct_1 (k2_ordinal6 X0)) \wedge ((v5_ordinal1 (k2_ordinal6 X0)) \wedge (v1_ordinal2 (k2_ordinal6 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.v1_relat_1 (k1_wellord2 X0) \quad (5)$$

Assume the following.

$$\forall X0.v3_ordinal1 (k1_ordinal6 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow (((v2_wellord1 X0) \wedge (r4_wellord1 X0 X1)) \Rightarrow (\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((X2 = k3_wellord1 X0 X1) \Leftrightarrow (r3_wellord1 X0 X1 X2)))))) \quad (7)$$

Assume the following.

$$\forall X0.k2_ordinal6 X0 = k3_wellord1 (k1_wellord2 (k1_ordinal6 X0)) (k1_wellord2 (k2_ordinal1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.k1_ordinal6 X0 = k2_wellord2 (k1_wellord2 (k2_ordinal1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v2_wellord1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((X1 = k2_wellord2 X0) \Leftrightarrow (r4_wellord1 X0 (k1_wellord2 X1)))))) \quad (10)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (v1_ordinal6 X0) \quad (11)$$

Theorem 1

$$\forall X0.r3_wellord1 (k1_wellord2 (k1_ordinal6 X0)) (k1_wellord2 (k2_ordinal1 X0)) (k2_ordinal6 X0)$$