

t27_orders_1 (TMSEEBKxoqH- wRj1DmDixHMTrfW1Ej32UpPZ)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_orders_1 : \iota \Rightarrow o$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_orders_1 : \iota \Rightarrow o$ be given. Let $v1_orders_1 : \iota \Rightarrow o$ be given. Let $v6_relat_2 : \iota \Rightarrow o$ be given. Let $v1_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ be given. Let $v4_relat_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v2_orders_1 X0) \Rightarrow (v2_orders_1 (k2_wellord1 X0 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v3_orders_1 X0) \Rightarrow ((v1_orders_1 X0) \wedge (v2_orders_1 X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((v6_relat_2 X1) \Rightarrow (v6_relat_2 (k2_wellord1 X1 X0))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X0) \Rightarrow (v1_relat_1 (k2_wellord1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v3_orders_1 X0) \Leftrightarrow ((v1_relat_2 X0) \wedge ((v8_relat_2 X0) \wedge ((v4_relat_2 X0) \wedge (v6_relat_2 X0)))))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v2_orders_1 X0) \Leftrightarrow ((v1_relat_2 X0) \wedge ((v8_relat_2 X0) \wedge (v4_relat_2 X0)))) \quad (6)$$

Theorem 1

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v3_orders_1 X0) \Rightarrow (v3_orders_1 (k2_wellord1 X0 X1)))$$