

t28_orders_1

(TMRibvFUps1exwfx8deDoioBMWz1fEoatLg)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r2_wellord1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_relat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r8_relat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_relat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r6_relat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_wellord1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r3_orders_1 X0 X1) \Leftrightarrow (r1_relat_2 X0 X1) \wedge ((r8_relat_2 X0 X1) \wedge ((r4_relat_2 X0 X1) \wedge (r6_relat_2 X0 X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r2_orders_1 X0 X1) \Leftrightarrow (r1_relat_2 X0 X1) \wedge ((r8_relat_2 X0 X1) \wedge (r4_relat_2 X0 X1))) \tag{2}$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r1_orders_1 X0 X1) \Leftrightarrow (r1_relat_2 X0 X1) \wedge (r8_relat_2 X0 X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r2_wellord1 X0 X1) \Leftrightarrow (r1_relat_2 X0 X1) \wedge ((r8_relat_2 X0 X1) \wedge ((r4_relat_2 X0 X1) \wedge (r6_relat_2 X0 X1) \wedge (r1_wellord1 X0 X1)))) \tag{4}$$

Theorem 1

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r2_wellord1 X0 X1) \Rightarrow (r1_orders_1 X0 X1) \wedge ((r2_orders_1 X0 X1) \wedge (r3_orders_1 X0 X1)))$$