

t40_orders_1
(TMXz1XUijPV4raXAtdoptmtAzhv8732mUS1)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r1_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $r8_relat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_relat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r8_relat_2 X0 X1) \Rightarrow (r8_relat_2 (k2_relat_1 X0) X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r1_relat_2 X0 X1) \Rightarrow (r1_relat_2 (k2_relat_1 X0) X1)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (v1_relat_1 (k2_relat_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r1_orders_1 X0 X1) \Leftrightarrow ((r1_relat_2 X0 X1) \wedge (r8_relat_2 X0 X1))) \quad (4)$$

Theorem 1

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r1_orders_1 X0 X1) \Rightarrow (r1_orders_1 (k2_relat_1 X0) X1))$$