

t9_ordinal4 (TMZLaZhGYDg- pCEZPgUcBrtnJ2ZLxpk7epgR)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_ordinal2 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in k1_ordinal1 X1) \Leftrightarrow ((X0 \in X1) \vee (X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0. X0 \in k1_ordinal1 X0 \quad (2)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((X0 \in k1_ordinal1 X1) \Leftrightarrow (r1_ordinal1 X0 X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (((v5_ordinal1 X0) \wedge ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_ordinal2 X0)))) \wedge (v3_ordinal1 X1)) \Rightarrow (v3_ordinal1 (k1_funct_1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. ((v5_ordinal1 X0) \wedge ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_ordinal2 X0)))) \Rightarrow ((v2_ordinal2 X0) \Leftrightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (\forall X2. (v3_ordinal1 X2) \Rightarrow (((X1 \in X2) \wedge (X2 \in k9_xtuple_0 X0)) \Rightarrow (k1_funct_1 X0 X1 \in k1_funct_1 X0 X2))))) \quad (5)$$

Theorem 1

$$\forall X0. ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_ordinal2 X0)))) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (\forall X2. (v3_ordinal1 X2) \Rightarrow (((v2_ordinal2 X0) \wedge ((r1_ordinal1 X1 X2) \wedge (X2 \in k9_xtuple_0 X0)) \Rightarrow (r1_ordinal1 (k1_funct_1 X0 X1) (k1_funct_1 X0 X2))))))$$