

t31_ordinal6 (TM-
PuT4oMMkvVgc4vtTZDWuvdLtZ4GEvccoN)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ 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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_ordinal6 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v5_ordinal1 X1) \wedge (v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_ordinal2 X1)))) \Rightarrow ((X0 \in k9_xtuple_0 X1) \Rightarrow (v3_ordinal1 (k1_funct_1 X1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(v3_ordinal1 X1) \Rightarrow ((X0 \in X1) \Rightarrow (v3_ordinal1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_ordinal2 X0)))) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (((v2_ordinal2 X0) \wedge (X1 \in k9_xtuple_0 X0)) \Rightarrow (r1_ordinal1 X1 (k1_funct_1 X0 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r1_ordinal1 X0 X1) \Leftrightarrow (r1_tarski X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v5_ordinal1 X0) \wedge (v1_ordinal2 X0)))) \Rightarrow ((v1_relat_1 (k3_ordinal6 X0)) \wedge ((v1_funct_1 (k3_ordinal6 X0)) \wedge ((v5_ordinal1 (k3_ordinal6 X0)) \wedge (v1_ordinal2 (k3_ordinal6 X0)) \wedge (v2_ordinal2 (k3_ordinal6 X0))))) \quad (5)$$

Assume the following.

$$\forall X0.(v5_ordinal1 X0) \Leftrightarrow (v3_ordinal1 (k9_xtuple_0 X0)) \quad (6)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge((v5_ordinal1 X1)\wedge(v1_ordinal2 X1))))\Rightarrow((X0 \in k9_xtuple_0 (k3_ordinal6 X1))\Rightarrow (r1_tarski X0 (k1_funct_1 (k3_ordinal6 X1) X0)))$$