

t3_finseq_4
(TMJgJK6gbt6WYWGPVnNiDWgwq1KADggLP3w)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_finseq_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(r1_finseq_4 X0 X1) \Leftrightarrow ((X1 \in k9_xtuple_0 X0) \wedge (k8_relat_1 X0 (k1_funct_1 X0 X1)) = k1_tarski X1)) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(r1_finseq_4 X0 X1) \Rightarrow (X1 \in k9_xtuple_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. (X2 = k8_relat_1 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in k9_xtuple_0 X0) \wedge (k1_funct_1 X0 X3 \in X1)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (4)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(r1_finseq_4 X0 X1) \Leftrightarrow ((X1 \in k9_xtuple_0 X0) \wedge (\forall X2. \neg (X2 \in k9_xtuple_0 X0) \wedge ((X1 \neq X2) \wedge (k1_funct_1 X0 X1 = k1_funct_1 X0 X2))))))$$