

t33_funct_5
(TMXLKc2xuN9kVd9eExGRSXTNcuoonyn3cfd)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_funct_5 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (k9_xtuple_0 (k3_funct_5 X0) = k10_xtuple_0 (k9_xtuple_0 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((k4_tarski X0 X1 \in k9_xtuple_0 X2) \Rightarrow ((X1 \in k9_xtuple_0 (k3_funct_5 X2)) \wedge ((v1_relat_1 (k1_funct_1 (k3_funct_5 X2) X1)) \wedge (v1_funct_1 (k1_funct_1 (k3_funct_5 X2) X1)))))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. k4_tarski X3 X2 \in X0)) \quad (3)$$

Theorem 1

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X0 \in k9_xtuple_0 (k3_funct_5 X1)) \Rightarrow ((v1_relat_1 (k1_funct_1 (k3_funct_5 X1) X0)) \wedge (v1_funct_1 (k1_funct_1 (k3_funct_5 X1) X0))))$$