

t28_sysrel (TMd- Hucq2DkZNYshCvALGP1inmPMAkdtaXkN)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k1_sysrel : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((k4_tarski X0 X1 \in k1_sysrel X2) \Rightarrow ((X0 \in k9_xtuple_0 (k1_sysrel X2)) \wedge (X0 = X1))) \quad (1)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k1_sysrel X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k9_xtuple_0 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. k4_tarski X2 X3 \in X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((X1 = k4_relat_1 X0) \Leftrightarrow (\forall X2. \forall X3. (k4_tarski X2 X3 \in X1) \Leftrightarrow ((X2 \in X0) \wedge (X2 = X3)))) \quad (4)$$

Theorem 1

$$\forall X0. (v1_relat_1 X0) \Rightarrow (k1_sysrel X0 = k4_relat_1 (k9_xtuple_0 (k1_sysrel X0)))$$