

t50_relat_1

(TMT8kWJJKyg6aAe82RkznqnK4nrYwe9UvkS)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (v1_relat_1 X3) \Rightarrow \\ & ((k4_tarski X0 X1 \in k3_relat_1 X3 (k4_relat_1 X2)) \Leftrightarrow ((X1 \in X2) \wedge (k4_tarski \\ & \quad X0 X1 \in X3))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (v1_relat_1 X3) \Rightarrow \\ & ((k4_tarski X0 X1 \in k3_relat_1 (k4_relat_1 X2) X3) \Leftrightarrow ((X0 \in X2) \wedge (k4_tarski \\ & \quad X0 X1 \in X3))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k3_relat_1 X0 X1) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. \\ & \quad \forall X3. (k4_tarski X2 X3 \in X0) \Rightarrow (k4_tarski X2 X3 \in X1))) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((r1_tarski (k3_relat_1 \\ & \quad X1 (k4_relat_1 X0)) X1) \wedge (r1_tarski (k3_relat_1 (k4_relat_1 X0) \\ & \quad X1) X1)) \end{aligned}$$