

t180_member_1

(TMcpyu3rWpJSAzsz4r7xE5kXS6WyZjZwq5W)

October 27, 2020

Let $v1_membered : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k21_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_membered X0) \Rightarrow (\forall X1.(v1_membered X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow ((r1_tarski X0 X1) \Leftrightarrow (r1_tarski (k21_member_1 \\ & X0 X2) (k21_member_1 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_membered X0) \Rightarrow (\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (X2 \in X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_membered X0) \Rightarrow (\forall X1.(v1_membered X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow ((k21_member_1 X0 X2 = k21_member_1 X1 X2) \Rightarrow (X0 = \\ & X1)))) \end{aligned}$$