

t121_funct_7 (TMNQBaahFPMzPYfmZR- WQMJYjFYvMMXK4Kza)

October 27, 2020

Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k13_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k7_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k9_xtuple_0 (k4_funct_4 X0 X1 X2 X3) = k2_tarski X0 X1) \wedge (r1_tarski (k10_xtuple_0 (k4_funct_4 X0 X1 X2 X3)) (k2_tarski X2 X3)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \tag{2}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Rightarrow (k2_xboole_0 X0 X1 = X1) \tag{5}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 \ X0 \ X1 = k2_funcop_1 \ X0 \ X1 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 \ X0) \wedge ((m1_subset_1 \\ & X1 \ X0) \wedge (m1_subset_1 \ X2 \ X0))) \Rightarrow (k7_domain_1 \ X0 \ X1 \ X2 = k2_tarski \ X1 \\ & X2) \end{aligned} \quad (8)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (v1_relat_1 \ (k4_funct_4 \\ & X0 \ X1 \ X2 \ X3)) \wedge (v1_funct_1 \ (k4_funct_4 \ X0 \ X1 \ X2 \ X3)) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_relat_1 \ (k2_funcop_1 \ X0 \ X1)) \wedge (v1_funct_1 \\ & (k2_funcop_1 \ X0 \ X1)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 \ (k13_funct_7 \ X0 \\ & X1 \ X2)) \wedge (v1_funct_1 \ (k13_funct_7 \ X0 \ X1 \ X2)) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 \ X0) \wedge ((m1_subset_1 \\ & X1 \ X0) \wedge (m1_subset_1 \ X2 \ X0))) \Rightarrow (m1_subset_1 \ (k7_domain_1 \ X0 \ X1 \ X2) \\ & (k1_zfmisc_1 \ X0)) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\
& \quad v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2.((v1_relat_1 X2) \wedge \\
& (v1_funct_1 X2)) \Rightarrow ((X2 = k1_funct_4 X0 X1) \Leftrightarrow ((k9_xtuple_0 X2 = k2_xboole_0 \\
& \quad (k9_xtuple_0 X0) (k9_xtuple_0 X1)) \wedge (\forall X3.(X3 \in k2_xboole_0 \\
& \quad (k9_xtuple_0 X0) (k9_xtuple_0 X1)) \Rightarrow (((X3 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\
& \quad X2 X3 = k1_funct_1 X1 X3)) \wedge ((\neg X3 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 X2 \\
& \quad X3 = k1_funct_1 X0 X3))))))))) \\
& \tag{16}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. k13_funct_7 X0 X1 X2 = k1_funct_4 \\
& (k7_funcop_1 k5_numbers X2) (k4_funct_4 k6_numbers np_1 X0 X1) \\
& \tag{17}
\end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \tag{18}$$

Assume the following.

$$\forall X0. \forall X1. k2_tarSKI X0 X1 = k2_tarSKI X1 X0 \tag{19}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. k9_xtuple_0 (k13_funct_7 X0 \\
& \quad X1 X2) = k5_numbers
\end{aligned}$$