

t16_zfmodell1

(TMP918p5R5rfCHqDTtwnPcaKqvEACyAUbbv)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_zf_lang : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zf_lang : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_zf_model : \iota \Rightarrow \iota$ be given. Let $r2_zf_model : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_zf_model : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r2_zfmodell1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_zf_model : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k13_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_4 : \iota$ be given. Let $k12_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmodell1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow ((v1_ordinal1 X0) \Rightarrow ((\forall X1. \\
& ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r1_xboole_0 \\
& (k1_enumset1 (k2_zf_lang k6_numbers) (k2_zf_lang np_1) (k2_zf_lang \\
& np_2)) (k2_zf_model X1)) \Rightarrow (r2_zf_model X0 (k11_zf_model X1)))) \Leftrightarrow \\
& (\forall X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\\
& \forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k1_zf_lang X0) \wedge (\\
& m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X0)))))) \Rightarrow \\
& (((r1_xboole_0 (k1_enumset1 (k2_zf_lang k6_numbers) (k2_zf_lang \\
& np_1) (k2_zf_lang np_2)) (k2_zf_model X1)) \wedge (r1_zf_model X0 \\
& X2 (k8_zf_lang (k2_zf_lang np_3) (k13_zf_lang (k2_zf_lang k6_numbers) \\
& (k8_zf_lang (k2_zf_lang np_4) (k12_zf_lang X1 (k4_zf_lang (k2_zf_lang \\
& np_4) (k2_zf_lang k6_numbers)))))))))) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 X0) \Rightarrow (k7_relset_1 X0 X0 (k1_zfmodel1 X1 X0 X2) X3 \in X0))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (k7_relset_1 X0 X1 X2 X3 = k7_relat_1 X2 X3) \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v1_zf_lang X0) \wedge (m1_finseq_1 \\
& X0 k5_numbers)) \wedge ((\neg v1_xboole_0 X1) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 k1_zf_lang X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang \\
& X1)))))) \Rightarrow ((v1_funct_1 (k1_zfmodel1 X0 X1 X2)) \wedge ((v1_funct_2 \\
& (k1_zfmodel1 X0 X1 X2) X1 X1) \wedge (m1_subset_1 (k1_zfmodel1 X0 X1 X2) \\
& (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. (\neg \\
& v1_xboole_0 X1) \Rightarrow ((r2_zfmodel1 X0 X1) \Leftrightarrow (\exists X2. ((v1_zf_lang \\
& X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (\exists X3. ((v1_funct_1 X3) \wedge \\
& ((v1_funct_2 X3 k1_zf_lang X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (\\
& k2_zfmisc_1 k1_zf_lang X1)))))) \wedge ((r1_xboole_0 (k1_enumset1 (\\
& k2_zf_lang k6_numbers) (k2_zf_lang np_1) (k2_zf_lang np_2)) \\
& (k2_zf_model X2)) \wedge ((r1_zf_model X1 X3 (k8_zf_lang (k2_zf_lang \\
& np_3) (k13_zf_lang (k2_zf_lang k6_numbers) (k8_zf_lang (k2_zf_lang \\
& np_4) (k12_zf_lang X2 (k4_zf_lang (k2_zf_lang np_4) (k2_zf_lang \\
& k6_numbers)))))))))) \wedge (X0 = k1_zfmodel1 X2 X1 X3))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0)\Rightarrow((v1_ordinal1 X0)\Rightarrow((\forall X1. \\ & ((v1_zf_lang X1)\wedge(m2_finseq_1 X1 k5_numbers))\Rightarrow((r1_xboole_0 \\ & (k1_enumset1 (k2_zf_lang k6_numbers) (k2_zf_lang np_1) (k2_zf_lang \\ & np_2)) (k2_zf_model X1))\Rightarrow(r2_zf_model X0 (k11_zf_model X1))))\Leftrightarrow \\ & (\forall X1.((v1_relat_1 X1)\wedge(v1_funct_1 X1))\Rightarrow((r2_zf_model1 \\ & X1 X0)\Rightarrow(\forall X2.(X2 \in X0)\Rightarrow(k7_relat_1 X1 X2 \in X0)))))) \end{aligned}$$