

t1_graphsp
(TMb2PfmE6DsRASjt37tt9ibgYjBEmRy1zD6)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.v2_funct_1 (k9_finseq_1 X0) \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ X1))) \Rightarrow (((r1_xboole_0 (k10_xtuple_0 X0) (k10_xtuple_0 X1)) \wedge \\ (v2_funct_1 X0) \wedge (v2_funct_1 X1))) \Leftrightarrow (v2_funct_1 (k7_finseq_1 \\ X0 X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(\neg X0 \in X1) \Rightarrow (r1_xboole_0 (k1_tarski X0) X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\neg (r1_xboole_0 (k1_tarski X0) X1) \wedge (X0 \in X1) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k4_finseq_1 X1 = k2_finseq_1 np_1) \wedge \\ (k10_xtuple_0 X1 = k1_tarski X0))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(r1_xboole_0 X0 X1) \Rightarrow (r1_xboole_0 X1 X0) \tag{6}$$

Assume the following.

$$\forall X0. k9_finseq_1 X0 = k5_finseq_1 X0 \quad (7)$$

Assume the following.

$$\forall X0. v1_finseq_1 (k5_finseq_1 X0) \quad (8)$$

Assume the following.

$$\forall X0. (v1_relat_1 (k5_finseq_1 X0)) \wedge (v1_funct_1 (k5_finseq_1 X0)) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1. ((\neg X1 \in k10_xtuple_0 X0) \wedge (v2_funct_1 X0)) \Leftrightarrow (v2_funct_1 \\ & (k7_finseq_1 X0 (k9_finseq_1 X1)))) \end{aligned}$$