

l26_glib_000 (TM-
LZVSvmeRuMqqVh5Dy8VFM e4fBXHr4zNWY)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_glib_000 : \iota \Rightarrow o$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v7_glib_000 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_glib_000 : \iota \Rightarrow o$ be given. Let $v5_glib_000 : \iota \Rightarrow o$ be given. Let $r1_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_glib_000 : \iota \Rightarrow \iota$ be given. Let $k11_glib_000 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow ((v7_glib_000 X0) \Leftrightarrow ((v3_glib_000 X0) \wedge (v5_glib_000 X0))) \quad (3)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow ((v5_glib_000 X0) \Leftrightarrow (\forall X1. \forall X2. \forall X3. \forall X4. ((r1_glib_000 X0 X3 X4 X1) \wedge (r1_glib_000 X0 X3 X4 X2)) \Rightarrow (X1 = X2))) \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow ((v3_glib_000 X0) \Leftrightarrow (\forall X1. \neg (X1 \in k7_glib_000 X0) \wedge (k1_funct_1 (k10_glib_000 X0) X1 = k1_funct_1 (k11_glib_000 X0) X1))) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\
& \quad X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\
& \quad \forall X3. (r1_glib_000 X0 X1 X2 X3) \Leftrightarrow ((X3 \in k7_glib_000 X0) \wedge ((\\
& \quad k1_funct_1 (k10_glib_000 X0) X3 = X1) \wedge (k1_funct_1 (k11_glib_000 \\
& \quad X0) X3 = X2)) \vee ((k1_funct_1 (k10_glib_000 X0) X3 = X2) \wedge (k1_funct_1 \\
& \quad (k11_glib_000 X0) X3 = X1))))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\
& \quad X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow ((k7_glib_000 X0 = \\
& \quad k1_xboole_0) \Rightarrow (v7_glib_000 X0))
\end{aligned}$$