

t26_altcat_2 (TM- GrZVZh9Foo5k6KT6Je7KxuZZQPK1JnzuC)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_altcat_1 : \iota \Rightarrow o$ be given. Let $l2_altcat_1 : \iota \Rightarrow o$ be given. Let $m1_altcat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_altcat_1 : \iota \Rightarrow \iota$ be given. Let $g2_altcat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_altcat_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_altcat_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge (l2_altcat_1 \\ & X0))) \Rightarrow (\forall X1. (m1_altcat_2 X1 X0) \Rightarrow (((u1_struct_0 X1 = u1_struct_0 \\ & X0) \wedge (u1_altcat_1 X1 = u1_altcat_1 X0)) \Rightarrow (g2_altcat_1 (u1_struct_0 \\ & X1) (u1_altcat_1 X1) (u2_altcat_1 X1) = g2_altcat_1 (u1_struct_0 \\ & X0) (u1_altcat_1 X0) (u2_altcat_1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge (l2_altcat_1 \\ & X0))) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_altcat_1 X1) \wedge (m1_altcat_2 \\ & X1 X0))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge ((v2_altcat_1 X2) \wedge (\\ & m1_altcat_2 X2 X0))) \Rightarrow (((r1_tarski (u1_struct_0 X1) (u1_struct_0 \\ & X2)) \wedge (r2_altcat_2 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 \\ & X1)) (k2_zfmisc_1 (u1_struct_0 X2) (u1_struct_0 X2)) (u1_altcat_1 \\ & X1) (u1_altcat_1 X2)))) \Rightarrow (m1_altcat_2 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (l2_altcat_1 X0) \Rightarrow (m1_altcat_2 X0 X0) \quad (3)$$

Assume the following.

$$\forall X0. (l2_altcat_1 X0) \Rightarrow (\forall X1. (m1_altcat_2 X1 X0) \Rightarrow (l2_altcat_1 X1)) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2_altcat_1 X0) \Rightarrow (\forall X1.(l2_altcat_1 X1) \Rightarrow ((\\
& m1_altcat_2 X1 X0) \Leftrightarrow ((r1_tarski (u1_struct_0 X1) (u1_struct_0 \\
& X0)) \wedge ((r2_altcat_2 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 \\
& X1)) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_altcat_1 \\
& X1) (u1_altcat_1 X0)) \wedge (r2_altcat_2 (k3_zfmisc_1 (u1_struct_0 \\
& X1) (u1_struct_0 X1) (u1_struct_0 X1)) (k3_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0) (u1_struct_0 X0)) (u2_altcat_1 X1) (u2_altcat_1 \\
& X0))))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge (l2_altcat_1 \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_altcat_1 X1) \wedge (m1_altcat_2 \\
& X1 X0))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v2_altcat_1 X2) \wedge (\\
& m1_altcat_2 X2 X0))) \Rightarrow (((u1_struct_0 X1 = u1_struct_0 X2) \wedge (u1_altcat_1 \\
& X1 = u1_altcat_1 X2)) \Rightarrow (g2_altcat_1 (u1_struct_0 X1) (u1_altcat_1 \\
& X1) (u2_altcat_1 X1) = g2_altcat_1 (u1_struct_0 X2) (u1_altcat_1 \\
& X2) (u2_altcat_1 X2))))))
\end{aligned}$$