

t21_projred1

(TMUWXJ4UD4bHDhui4Tpxq7ZfCtAA3QZNF92)

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Let $v6_incsp_1 : \iota \Rightarrow o$ be given. Let $v1_incproj : \iota \Rightarrow o$ be given. Let $v2_incproj : \iota \Rightarrow o$ be given. Let $v3_incproj : \iota \Rightarrow o$ be given. Let $v4_incproj : \iota \Rightarrow o$ be given. Let $v5_incproj : \iota \Rightarrow o$ be given. Let $v9_incproj : \iota \Rightarrow o$ be given. Let $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u2_incsp_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_projred1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\ & (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow (\neg (X2 \in k10_xtuple_0 \\ & X3) \wedge (\forall X4. (m1_subset_1 X4 X0) \Rightarrow (\neg (X4 \in k1_relset_1 X0 X3) \wedge \\ & (X2 = k1_funct_1 X3 X4)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\ & ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge ((v5_incproj X0) \wedge ((v9_incproj \\ & X0) \wedge (l1_incsp_1 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_incsp_1 \\ & X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_incsp_1 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 \\ & (u2_incsp_1 X0)) \Rightarrow (\forall X5. (m1_subset_1 X5 (u2_incsp_1 X0)) \Rightarrow \\ & (((r1_incsp_1 X0 X2 X4) \wedge (X3 = k1_funct_1 (k1_projred1 X0 X4 X5 X1) \\ & X2)) \Rightarrow ((r1_incsp_1 X0 X1 X4) \vee ((r1_incsp_1 X0 X1 X5) \vee (r1_incsp_1 \\ & X0 X3 X5)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(((v6_incsp_1 X0)\wedge \\
& ((v1_incproj X0)\wedge((v2_incproj X0)\wedge((v3_incproj X0)\wedge((v4_incproj \\
& X0)\wedge((v5_incproj X0)\wedge((v9_incproj X0)\wedge(l1_incsp_1 X0))))))\wedge \\
& ((m1_subset_1 X1 (u2_incsp_1 X0))\wedge((m1_subset_1 X2 (u2_incsp_1 \\
& X0))\wedge(m1_subset_1 X3 (u1_incsp_1 X0))))\Rightarrow((v1_funct_1 (k1_projred1 \\
& X0 X1 X2 X3))\wedge(m1_subset_1 (k1_projred1 X0 X1 X2 X3) (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_incsp_1 X0) (u1_incsp_1 X0))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v6_incsp_1 X0)\wedge((v1_incproj X0)\wedge((v2_incproj X0)\wedge \\
& ((v3_incproj X0)\wedge((v4_incproj X0)\wedge((v5_incproj X0)\wedge((v9_incproj \\
& X0)\wedge(l1_incsp_1 X0))))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u2_incsp_1 \\
& X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u2_incsp_1 X0))\Rightarrow(\forall X3. \\
& (m1_subset_1 X3 (u1_incsp_1 X0))\Rightarrow(\neg(\neg r1_incsp_1 X0 X3 X1)\wedge((\neg \\
& r1_incsp_1 X0 X3 X2)\wedge(\neg\forall X4.((v1_funct_1 X4)\wedge(m1_subset_1 \\
& X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_incsp_1 X0) (u1_incsp_1 X0))))\Rightarrow \\
& ((X4 = k1_projred1 X0 X1 X2 X3)\Leftrightarrow((r1_tarski (k1_relset_1 (u1_incsp_1 \\
& X0) X4) (u1_incsp_1 X0))\wedge(\forall X5.(m1_subset_1 X5 (u1_incsp_1 \\
& X0))\Rightarrow((X5 \in k1_relset_1 (u1_incsp_1 X0) X4)\Leftrightarrow(r1_incsp_1 X0 X5 X1))\wedge \\
& (\forall X5.(m1_subset_1 X5 (u1_incsp_1 X0))\Rightarrow(\forall X6.(m1_subset_1 \\
& X6 (u1_incsp_1 X0))\Rightarrow(((r1_incsp_1 X0 X5 X1)\wedge(r1_incsp_1 X0 X6 X2))\Rightarrow \\
& ((k1_funct_1 X4 X5 = X6)\Leftrightarrow(\exists X7.(m1_subset_1 X7 (u2_incsp_1 \\
& X0))\wedge((r1_incsp_1 X0 X3 X7)\wedge((r1_incsp_1 X0 X5 X7)\wedge(r1_incsp_1 \\
& X0 X6 X7))))))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v6_incsp_1 X0)\wedge((v1_incproj X0)\wedge((v2_incproj X0)\wedge \\
& ((v3_incproj X0)\wedge((v4_incproj X0)\wedge((v5_incproj X0)\wedge((v9_incproj \\
& X0)\wedge(l1_incsp_1 X0))))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_incsp_1 \\
& X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_incsp_1 X0))\Rightarrow(\forall X3. \\
& (m1_subset_1 X3 (u2_incsp_1 X0))\Rightarrow(\forall X4.(m1_subset_1 X4 \\
& (u2_incsp_1 X0))\Rightarrow((X2 \in k10_xtuple_0 (k1_projred1 X0 X3 X4 X1))\Rightarrow \\
& ((r1_incsp_1 X0 X1 X3)\vee((r1_incsp_1 X0 X1 X4)\vee(r1_incsp_1 X0 X2 \\
& X4))))))
\end{aligned}$$