

t13_projred1

(TMJHVuAaXxei6ZBDpLHqQEFWdmmegLoeQ8F)

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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 $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u2_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $r1_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\ ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge (l1_incsp_1 X0)))))) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u2_incsp_1 X0)) \Rightarrow (\exists X2.(m1_subset_1 X2 \\ (u1_incsp_1 X0)) \wedge (r1_incsp_1 X0 X2 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\ ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge (l1_incsp_1 X0)))))) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_incsp_1 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow \\ (\forall X4.(m1_subset_1 X4 (u1_incsp_1 X0)) \Rightarrow (\forall X5.(m1_subset_1 \\ X5 (u2_incsp_1 X0)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u2_incsp_1 X0)) \Rightarrow \\ (\neg(\exists X7.(m1_subset_1 X7 (u1_incsp_1 X0)) \wedge ((r1_incsp_1 \\ X0 X7 X5) \wedge (r1_incsp_1 X0 X7 X6))) \wedge ((r1_incsp_1 X0 X1 X5) \wedge ((r1_incsp_1 \\ X0 X2 X5) \wedge ((r1_incsp_1 X0 X3 X5) \wedge ((r1_incsp_1 X0 X4 X5) \wedge ((r2_zfmisc_1 \\ X1 X2 X3 X4) \wedge (\forall X7.(m1_subset_1 X7 (u1_incsp_1 X0)) \Rightarrow (\forall X8. \\ (m1_subset_1 X8 (u1_incsp_1 X0)) \Rightarrow (\forall X9.(m1_subset_1 X9 \\ (u1_incsp_1 X0)) \Rightarrow (\forall X10.(m1_subset_1 X10 (u1_incsp_1 X0)) \Rightarrow \\ (\neg(r1_incsp_1 X0 X7 X6) \wedge ((r1_incsp_1 X0 X8 X6) \wedge ((r1_incsp_1 X0 \\ X9 X6) \wedge ((r1_incsp_1 X0 X10 X6) \wedge (r2_zfmisc_1 X7 X8 X9 X10)))))))))))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_incsp_1 X0) \Rightarrow ((v6_incsp_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 \\ X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_incsp_1 X0)) \Rightarrow \\ (\exists X3.(m1_subset_1 X3 (u2_incsp_1 X0)) \wedge ((r1_incsp_1 X0 \\ X1 X3) \wedge (r1_incsp_1 X0 X2 X3)))))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\ & ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge (l1_incsp_1 X0)))))) \Rightarrow ((\exists X1. \\ & (m1_subset_1 X1 (u2_incsp_1 X0)) \wedge (\exists X2.(m1_subset_1 X2 \\ & (u1_incsp_1 X0)) \wedge (\exists X3.(m1_subset_1 X3 (u1_incsp_1 X0)) \wedge \\ & (\exists X4.(m1_subset_1 X4 (u1_incsp_1 X0)) \wedge (\exists X5.(m1_subset_1 \\ & X5 (u1_incsp_1 X0)) \wedge ((r1_incsp_1 X0 X2 X1) \wedge ((r1_incsp_1 X0 X3 X1) \wedge \\ & ((r1_incsp_1 X0 X4 X1) \wedge ((r1_incsp_1 X0 X5 X1) \wedge (r2_zfmisc_1 X2 X3 \\ & X4 X5)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u2_incsp_1 X0)) \Rightarrow \\ & (\exists X2.(m1_subset_1 X2 (u1_incsp_1 X0)) \wedge (\exists X3.(m1_subset_1 \\ & X3 (u1_incsp_1 X0)) \wedge (\exists X4.(m1_subset_1 X4 (u1_incsp_1 X0)) \wedge \\ & (\exists X5.(m1_subset_1 X5 (u1_incsp_1 X0)) \wedge ((r1_incsp_1 X0 \\ & X2 X1) \wedge ((r1_incsp_1 X0 X3 X1) \wedge ((r1_incsp_1 X0 X4 X1) \wedge ((r1_incsp_1 \\ & X0 X5 X1) \wedge (r2_zfmisc_1 X2 X3 X4 X5)))))))))) \end{aligned}$$