

t13_twoscomp (TM- MVFS6c1vwMaUFfDm55TPnsZ6kMzFiQoer)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_margrel1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21_twoscomp : \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_margrel1 : \iota \Rightarrow \iota$ be given. Let $k10_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22_twoscomp : \iota$ be given. Let $k23_twoscomp : \iota$ be given. Let $k24_twoscomp : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(v1_funct_1 \ k24_twoscomp) \wedge ((v1_funct_2 \ k24_twoscomp \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1) \wedge (m1_subset_1 \ k24_twoscomp \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1)))) \quad (1)$$

Assume the following.

$$(v1_funct_1 \ k23_twoscomp) \wedge ((v1_funct_2 \ k23_twoscomp \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1) \wedge (m1_subset_1 \ k23_twoscomp \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1)))) \quad (2)$$

Assume the following.

$$(v1_funct_1 \ k22_twoscomp) \wedge ((v1_funct_2 \ k22_twoscomp \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1) \wedge (m1_subset_1 \ k22_twoscomp \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1)))) \quad (3)$$

Assume the following.

$$(v1_funct_1 \ k21_twoscomp) \wedge ((v1_funct_2 \ k21_twoscomp \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1) \wedge (m1_subset_1 \ k21_twoscomp \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k4_finseq_2 \ np_3 \ k6_margrel1) \ k6_margrel1)))) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (k4_finseq_2 np_3 \\
& k6_margrel1) k6_margrel1) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k4_finseq_2 np_3 k6_margrel1) k6_margrel1)))))) \Rightarrow ((X0 = k24_twoscomp) \Leftrightarrow \\
& (\forall X1.(m1_subset_1 X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 k6_margrel1) \Rightarrow (\forall X3.(m1_subset_1 X3 k6_margrel1) \Rightarrow (k1_funct_1 \\
& X0 (k11_finseq_1 X1 X2 X3) = k9_margrel1 (k10_margrel1 (k10_margrel1 \\
& (k9_margrel1 X1) (k9_margrel1 X2)) (k9_margrel1 X3)))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (k4_finseq_2 np_3 \\
& k6_margrel1) k6_margrel1) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k4_finseq_2 np_3 k6_margrel1) k6_margrel1)))))) \Rightarrow ((X0 = k23_twoscomp) \Leftrightarrow \\
& (\forall X1.(m1_subset_1 X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 k6_margrel1) \Rightarrow (\forall X3.(m1_subset_1 X3 k6_margrel1) \Rightarrow (k1_funct_1 \\
& X0 (k11_finseq_1 X1 X2 X3) = k9_margrel1 (k10_margrel1 (k10_margrel1 \\
& (k9_margrel1 X1) (k9_margrel1 X2)) X3))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (k4_finseq_2 np_3 \\
& k6_margrel1) k6_margrel1) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k4_finseq_2 np_3 k6_margrel1) k6_margrel1)))))) \Rightarrow ((X0 = k22_twoscomp) \Leftrightarrow \\
& (\forall X1.(m1_subset_1 X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 k6_margrel1) \Rightarrow (\forall X3.(m1_subset_1 X3 k6_margrel1) \Rightarrow (k1_funct_1 \\
& X0 (k11_finseq_1 X1 X2 X3) = k9_margrel1 (k10_margrel1 (k10_margrel1 \\
& (k9_margrel1 X1) X2) X3))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (k4_finseq_2 np_3 \\
& k6_margrel1) k6_margrel1) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k4_finseq_2 np_3 k6_margrel1) k6_margrel1)))))) \Rightarrow ((X0 = k21_twoscomp) \Leftrightarrow \\
& (\forall X1.(m1_subset_1 X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 k6_margrel1) \Rightarrow (\forall X3.(m1_subset_1 X3 k6_margrel1) \Rightarrow (k1_funct_1 \\
& X0 (k11_finseq_1 X1 X2 X3) = k9_margrel1 (k10_margrel1 (k10_margrel1 \\
& X1 X2) X3))))))
\end{aligned} \tag{8}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 X2 k6_margrel1) \Rightarrow ((\\ & k1_funct_1 k21_twoscomp (k11_finseq_1 X0 X1 X2) = k9_margrel1 (\\ & k10_margrel1 (k10_margrel1 X0 X1) X2)) \wedge ((k1_funct_1 k22_twoscomp \\ & (k11_finseq_1 X0 X1 X2) = k9_margrel1 (k10_margrel1 (k10_margrel1 \\ & (k9_margrel1 X0) X1) X2)) \wedge ((k1_funct_1 k23_twoscomp (k11_finseq_1 \\ & X0 X1 X2) = k9_margrel1 (k10_margrel1 (k10_margrel1 (k9_margrel1 \\ & X0) (k9_margrel1 X1)) X2)) \wedge (k1_funct_1 k24_twoscomp (k11_finseq_1 \\ & X0 X1 X2) = k9_margrel1 (k10_margrel1 (k10_margrel1 (k9_margrel1 \\ & X0) (k9_margrel1 X1)) (k9_margrel1 X2)))))))))) \end{aligned}$$