

t101_chord
(TMVV14MUjCJt2Z8b2CdrUFHcT8f3YRy9c8s)

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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 $v2_glib_000 : \iota \Rightarrow o$ be given. Let $v6_chord : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $r1_chord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_chord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_chord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_glib_002 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\
& \quad X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v2_glib_000 X0) \wedge \\
& \quad (v6_chord X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k6_glib_000 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow (\neg(X1 \neq X2) \wedge \\
& ((\neg r1_chord X0 X1 X2) \wedge (\exists X3.(m2_chord X3 X0 X1 X2) \wedge ((v4_chord \\
& \quad X3 X0 X1 X2) \wedge (\exists X4.(m2_glib_000 X4 X0 (k6_subset_1 (k6_glib_000 \\
& \quad X0) X3) (k21_glib_000 X0 (k6_subset_1 (k6_glib_000 X0) X3)))) \wedge (\\
& \quad \exists X5.(m1_subset_1 X5 (k6_glib_000 X4)) \wedge ((X1 = X5) \wedge (\forall X6. \\
& (m1_subset_1 X6 (k6_glib_000 X0)) \Rightarrow (\neg(X6 \in k1_glib_002 X4 X5) \wedge (\\
& \quad \forall X7.(m1_subset_1 X7 (k6_glib_000 X0)) \Rightarrow ((X7 \in X3) \Rightarrow (r1_chord \\
& \quad X0 X6 X7)))))))))))))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & \quad X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v2_glib_000 X0) \wedge \\ & \quad (v6_chord X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k6_glib_000 \\ & \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow (\neg(X1 \neq X2) \wedge \\ & ((\neg r1_chord X0 X1 X2) \wedge (\exists X3.(m2_chord X3 X0 X1 X2) \wedge ((v4_chord \\ & \quad X3 X0 X1 X2) \wedge (\exists X4.(m2_glib_000 X4 X0 (k6_subset_1 (k6_glib_000 \\ & \quad X0) X3) (k21_glib_000 X0 (k6_subset_1 (k6_glib_000 X0) X3))) \wedge (\\ & \quad \exists X5.(m1_subset_1 X5 (k6_glib_000 X4)) \wedge ((X1 = X5) \wedge (\exists X6. \\ & \quad (m1_subset_1 X6 (k6_glib_000 X0)) \wedge (\exists X7.(m1_subset_1 X7 \\ & \quad (k6_glib_000 X0)) \wedge (X6 \in X3) \wedge (X7 \in X3) \wedge (\forall X8.(m1_subset_1 \\ & \quad X8 (k6_glib_000 X0)) \Rightarrow (\neg(X8 \in k1_glib_002 X4 X5) \wedge ((r1_chord X0 X8 \\ & \quad X6) \wedge (r1_chord X0 X8 X7))))))))))))))))) \end{aligned}$$