

t105_chord (TMb-
bUYjuYP5ppkv2mLCLJHWtTQa8Mj7LiDE)

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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 $m3_chord : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k15_glib_000 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k14_glib_000 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow \\ (r1_xxreal_0 np_1 (k15_glib_000 X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow \\ (\forall X1.(m3_chord X1 X0) \Rightarrow (k3_finseq_1 X1 = k5_card_1 (k6_glib_000 \\ X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow \\ (k15_glib_000 X0 = k14_glib_000 X0) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow \\ (v1_finset_1 (k6_glib_000 X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \ k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (k14_glib_000 X0 = k1_card_1 (k6_glib_000 X0)) \quad (6)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \ k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_chord X1 X0) \Rightarrow (r1_xxreal_0 np_1 (k3_finseq_1 X1)))$$