

t62\_chord  
(TMV1mo8AzzLvdZU5wCv65eE3qwrXs7FriD)

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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  $r5\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_chord : \iota \Rightarrow o$  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  $k7\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $r1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k11\_glib\_000 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_glib\_000 X1)))))) \Rightarrow ((r5\_glib\_000 X0 X1) \Rightarrow (\forall X2.( \\ m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ (k6\_glib\_000 X0)) \Rightarrow ((r1\_chord X0 X2 X3) \Rightarrow (\forall X4.(m1\_subset\_1 \\ X4 (k6\_glib\_000 X1)) \Rightarrow (\forall X5.(m1\_subset\_1 X5 (k6\_glib\_000 \\ X1)) \Rightarrow (((X2 = X4) \wedge (X3 = X5)) \Rightarrow (r1\_chord X1 X4 X5)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow ((v2\_chord X0) \Leftrightarrow \\ (\forall X1.(m1\_subset\_1 X1 (k6\_glib\_000 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ X2 (k6\_glib\_000 X0)) \Rightarrow ((X1 \neq X2) \Rightarrow (r1\_chord X0 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_glib\_000 X1)))))) \Rightarrow ((r5\_glib\_000 X0 X1) \Leftrightarrow ((k6\_glib\_000 \\ X0 = k6\_glib\_000 X1) \wedge ((k7\_glib\_000 X0 = k7\_glib\_000 X1) \wedge ((r1\_funct\_2 \\ (k7\_glib\_000 X0) (k6\_glib\_000 X0) (k7\_glib\_000 X1) (k6\_glib\_000 \\ X1) (k10\_glib\_000 X0) (k10\_glib\_000 X1)) \wedge (r1\_funct\_2 (k7\_glib\_000 \\ X0) (k6\_glib\_000 X0) (k7\_glib\_000 X1) (k6\_glib\_000 X1) (k11\_glib\_000 \\ X0) (k11\_glib\_000 X1)))))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.((v1\_relat\_1 \\ X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_finset\_1 \\ X1) \wedge (v1\_glib\_000 X1)))))) \Rightarrow (((r5\_glib\_000 X0 X1) \wedge (v2\_chord X0)) \Rightarrow \\ (v2\_chord X1)) \end{aligned}$$