

## t50\_chord

(TMWSJbFXR9niSRxWMo1qYuzz8HcgN6dxhaj)

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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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k2\_chord : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_chord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. k2\_chord \\ X0 X1 = ReplSep (toset (\lambda X2 : \iota. m1\_subset\_1 X2 (k6\_glib\_000 \\ X0))) (\lambda X2 : \iota. (\neg X2 \in X1) \wedge (\exists X3. (m1\_subset\_1 X3 (k6\_glib\_000 \\ X0)) \wedge ((X3 \in X1) \wedge (r1\_chord X0 X2 X3)))))) (\lambda X2 : \iota. X2)) \end{aligned} \quad (1)$$

### Theorem 1

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ (m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow ((X2 \in k2\_chord X0 X1) \Leftrightarrow ((\neg X2 \in \\ X1) \wedge (\exists X3. (m1\_subset\_1 X3 (k6\_glib\_000 X0)) \wedge ((X3 \in X1) \wedge \\ (r1\_chord X0 X2 X3)))))) \end{aligned}$$