t80_chord (TMWZrgPZdKhtRvY-HDQY9LThJwzXMeJBzsnt)

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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 $r1\_chord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k6\_glib\_000\ X0)) \Rightarrow (\neg(X1 \neq X2) \wedge ((\neg r1\_chord\ X0\ X1\ X2) \wedge (\neg \forall X3.(m2\_chord\ X3\ X0\ X1\ X2) \Rightarrow (m2\_chord\ X3\ X0\ X2\ X1)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \wedge ((m1\_subset\_1\ X1\ (k6\_glib\_000\ X0)) \wedge (m1\_subset\_1\ X2\ (k6\_glib\_000\ X0)))) \Rightarrow ((r1\_chord\ X0\ X1\ X2) \Rightarrow (r1\_chord\ X0\ X2\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k6\_glib\_000\ X0)) \Rightarrow (\forall X3.(m2\_chord\ X3\ X0\ X1\ X2) \Rightarrow ((v4\_chord\ X3\ X0\ X1\ X2) \Leftrightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ X3)) \Rightarrow (\neg(X4 \neq X3) \wedge (m2\_chord\ X4\ X0\ X1\ X2))))))) \tag{3}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k6\_glib\_000\ X0))\Rightarrow(\neg(X1\neq X2)\wedge((\neg r1\_chord\ X0\ X1\ X2)\wedge(\exists X3.(m2\_chord\ X3\ X0\ X1\ X2)\wedge((v4\_chord\ X3\ X0\ X1\ X2)\wedge(\exists X4.(m2\_chord\ X4\ X0\ X2\ X1)\wedge((X3 = X4)\wedge(\neg v4\_chord\ X4\ X0\ X2\ X1)))))))))$$