t34_chain_1 (TMGtX-Duddk9nCnJb8iSJnHXjzmEGKRnGPL7)

October 27, 2020

Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_euclid : \iota \Rightarrow \iota$ be given. Let $m1\_chain\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_chain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_chain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_chain\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_chain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge (m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers)) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X1)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X1)) \Rightarrow (\forall X4.(m1\_chain\_1\ X4\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow ((k3\_chain\_1\ X1\ X2\ X3 \in k4\_chain\_1\ X1\ X4\ X0) \Leftrightarrow (\neg(\forall X5.(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_finseq\_1\ X1))) \Rightarrow (\neg(k5\_card\_1\ X5 = X0) \wedge (\forall X6.(m2\_subset\_1\ X6\ k5\_numbers\ (k2\_finseq\_1\ X1)) \Rightarrow (((X6 \in X5) \wedge ((\neg r1\_xxreal\_0\ (k1\_seq\_1\ X3\ X6)\ (k1\_seq\_1\ X2\ X6)) \wedge (m2\_chain\_1\ (k1\_domain\_1\ k1\_numbers\ k1\_numbers\ (k1\_seq\_1\ X2\ X6)\ (k1\_seq\_1\ X3\ X6))\ (k2\_chain\_1\ X1\ X4\ X6)))) \vee ((\neg X6 \in X5) \wedge ((k1\_seq\_1\ X2\ X6 = k1\_seq\_1\ X3\ X6) \wedge (k1\_seq\_1\ X2\ X6 \in k2\_chain\_1\ X1\ X4\ X6)))))))) \wedge (\neg(X0 = X1) \wedge (\forall X5.(m2\_subset\_1\ X5\ k5\_numbers\ (k2\_finseq\_1\ X1)) \Rightarrow ((\neg r1\_xxreal\_0\ (k1\_seq\_1\ X2\ X5)\ (k1\_seq\_1\ X3\ X5)) \wedge (m2\_chain\_1\ (k1\_domain\_1\ k1\_numbers\ k1\_numbers\ (k1\_seq\_1\ X2\ X5)\ (k1\_seq\_1\ X3\ X5))\ (k2\_chain\_1\ X1\ X4\ X5)))))))))))) \tag{1}$$

Theorem 1

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers))\Rightarrow(\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X1))\Rightarrow(\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X1))\Rightarrow(\forall X4.(m1\_chain\_1\ X4\ X1)\Rightarrow(\neg(r1\_xxreal\_0\ X0\ X1)\wedge((k3\_chain\_1\ X1\ X2\ X3\in k4\_chain\_1\ X1\ X4\ X0)\wedge((\exists X5.(m2\_subset\_1\ X5\ k5\_numbers\ (k2\_finseq\_1\ X1))\wedge((\neg(\neg r1\_xxreal\_0\ (k1\_seq\_1\ X3\ X5)\ (k1\_seq\_1\ X2\ X5))\wedge(m2\_chain\_1\ (k1\_domain\_1\ k1\_numbers\ k1\_numbers\ (k1\_seq\_1\ X2\ X5)\ (k1\_seq\_1\ X3\ X5))\ (k2\_chain\_1\ X1\ X4\ X5)))\wedge(\neg(k1\_seq\_1\ X2\ X5=k1\_seq\_1\ X3\ X5)\wedge(k1\_seq\_1\ X2\ X5\in k2\_chain\_1\ X1\ X4\ X5))))\wedge(\neg\forall X5.(m2\_subset\_1\ X5\ k5\_numbers\ (k2\_finseq\_1\ X1))\Rightarrow((\neg r1\_xxreal\_0\ (k1\_seq\_1\ X2\ X5)\ (k1\_seq\_1\ X3\ X5))\wedge(m2\_chain\_1\ (k1\_domain\_1\ k1\_numbers\ k1\_numbers\ (k1\_seq\_1\ X2\ X5)\ (k1\_seq\_1\ X3\ X5))\ (k2\_chain\_1\ X1\ X4\ X5))))))))))$$