t7_graph_5 (TMGDfXNJ4Td9zV2ykHxB5rVdSKjaTRBSmGP)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ 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 $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow ((\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\neg(r1\_xxreal\_0\ np\_\_1\ X1) \wedge ((\neg r1\_xxreal\_0\ X2\ X1) \wedge ((r1\_xxreal\_0\ X2\ (k3\_finseq\_1\ X0)) \wedge (k1\_funct\_1\ X0\ X1 = k1\_funct\_1\ X0\ X2)))))) \Leftrightarrow (v2\_funct\_1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow ((v2\_funct\_1\ X0) \Leftrightarrow (k5\_card\_1\ (k10\_xtuple\_0\ X0) = k3\_finseq\_1\ X0)) \tag{2}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow ((\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\neg(r1\_xxreal\_0\ np\_\_1\ X1) \wedge ((\neg r1\_xxreal\_0\ X2\ X1) \wedge ((r1\_xxreal\_0\ X2\ (k3\_finseq\_1\ X0)) \wedge (k1\_funct\_1\ X0\ X1 = k1\_funct\_1\ X0\ X2)))))) \Leftrightarrow (k5\_card\_1\ (k10\_xtuple\_0\ X0) = k3\_finseq\_1\ X0))$$