t23_glib_003 (TMM5CFzqHRQBYpvHx7ZMVnG4ugSLMcjDPSk)

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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 $v1\_glib\_003 : \iota \Rightarrow o$ be given. Let $v7\_glib\_003 : \iota \Rightarrow o$ be given. Let $m3\_glib\_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_glib\_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k18\_rvsum\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_glib\_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_5 : \iota \Rightarrow \iota$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_glib\_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m2\_finseq\_1\ X0\ k1\_numbers) \Rightarrow (k18\_rvsum\_1\ X0 = k18\_rvsum\_1\ (k4\_finseq\_5\ k1\_numbers\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge ((v1\_glib\_000\ X0) \wedge (v1\_glib\_003\ X0)))))) \Rightarrow (\forall X1.(m3\_glib\_001\ X1\ X0) \Rightarrow (k8\_glib\_003\ X0\ (k6\_glib\_001\ X0\ X1) = k3\_finseq\_5\ (k8\_glib\_003\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge ((v1\_glib\_000\ X0) \wedge ((v1\_glib\_003\ X0) \wedge (v7\_glib\_003\ X0))))))) \wedge (m3\_glib\_001\ X1\ X0)) \Rightarrow (k9\_glib\_003\ X0\ X1 = k8\_glib\_003\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0) \Rightarrow (k4\_finseq\_5\ X0\ X1 = k3\_finseq\_5\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge((v1\_glib\_000\ X0)\wedge((v1\_glib\_003\ X0)\wedge(v7\_glib\_003\ X0)))))))\wedge(m3\_glib\_001\ X1\ X0))\Rightarrow(m2\_finseq\_1\ (k9\_glib\_003\ X0\ X1)\ k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\wedge(m3\_glib\_001\ X1\ X0))\Rightarrow(m3\_glib\_001\ (k6\_glib\_001\ X0\ X1)\ X0) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge((v1\_glib\_000\ X0)\wedge((v1\_glib\_003\ X0)\wedge(v7\_glib\_003\ X0)))))))\Rightarrow(\forall X1.(m3\_glib\_001\ X1\ X0)\Rightarrow(k10\_glib\_003\ X0\ X1 = k18\_rvsum\_1\ (k9\_glib\_003\ X0\ X1))) \tag{8}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge((v1\_glib\_000\ X0)\wedge((v1\_glib\_003\ X0)\wedge(v7\_glib\_003\ X0)))))))\Rightarrow(\forall X1.(m3\_glib\_001\ X1\ X0)\Rightarrow(k10\_glib\_003\ X0\ X1 = k10\_glib\_003\ X0\ (k6\_glib\_001\ X0\ X1)))$$