t54_pnproc_1 (TMGP-cYN1JtCDsj8MdXbMjLh7DV5DpmbQA2N)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v2\_finseq\_1 : \iota \Rightarrow o$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k12\_pnproc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (k1\_card\_1\ X0 = k1\_card\_1\ (k9\_xtuple\_0\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_wellord2\ X0\ X1) \Leftrightarrow (k1\_card\_1\ X0 = k1\_card\_1\ X1) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v2\_finseq\_1\ X1))) \Rightarrow (\exists X2.((v1\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v2\_finseq\_1\ X2))) \wedge ((k9\_xtuple\_0\ X2 = k9\_xtuple\_0\ X1) \wedge ((k10\_xtuple\_0\ X2 = k9\_xtuple\_0\ (k12\_pnproc\_1\ X1\ X0)) \wedge ((\forall X3.(m1\_subset\_1\ X3\ k5\_numbers) \Rightarrow ((X3 \in k9\_xtuple\_0\ X1) \Rightarrow (k1\_funct\_1\ X2\ X3 = k2\_nat\_1\ X0\ X3))) \wedge (v2\_funct\_1\ X2))))))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (k5\_card\_1\ X0 = k1\_card\_1\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v2\_finseq\_1\ X0))) \wedge (m1\_subset\_1\ X1\ k5\_numbers)) \Rightarrow ((v1\_relat\_1\ (k12\_pnproc\_1\ X0\ X1)) \wedge ((v1\_funct\_1\ (k12\_pnproc\_1\ X0\ X1)) \wedge (v2\_finseq\_1\ (k12\_pnproc\_1\ X0\ X1)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_wellord2\ X0\ X1)\Leftrightarrow(\exists X2.((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))\wedge((v2\_funct\_1\ X2)\wedge((k9\_xtuple\_0\ X2 = X0)\wedge(k10\_xtuple\_0\ X2 = X1)))) \quad (6)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v2\_finseq\_1\ X0)))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v2\_finseq\_1\ X0)))) \quad (7)$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v2\_finseq\_1\ X1)))\Rightarrow(k5\_card\_1\ X1 = k5\_card\_1\ (k12\_pnproc\_1\ X1\ X0)))$$