t57_ec_pf_1 (TMU6ynZQ6PPACAv6s7M4X9vjDXztmem7Vyq)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_relat\_2 : \iota \Rightarrow o$ be given. Let $v8\_relat\_2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $v2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_wsierp\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_prob\_2 : \iota \Rightarrow o$ be given. Let $k16\_rvsum\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_partfun1\ X1\ X0) \wedge ((v3\_relat\_2\ X1) \wedge ((v8\_relat\_2\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v5\_relat\_1\ X2\ (k8\_eqrel\_1\ X0\ X1)) \wedge (v1\_funct\_1\ X2))) \Rightarrow ((v2\_funct\_2\ X2\ (k8\_eqrel\_1\ X0\ X1)) \Rightarrow (k3\_card\_3\ X2 = X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_partfun1\ X1\ X0) \wedge ((v3\_relat\_2\ X1) \wedge ((v8\_relat\_2\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v5\_relat\_1\ X2\ (k8\_eqrel\_1\ X0\ X1)) \wedge (v1\_funct\_1\ X2))) \Rightarrow ((v2\_funct\_1\ X2) \Rightarrow (v1\_prob\_2\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_finset\_1\ X0))\Rightarrow(\forall X1.((v1\_partfun1\ X1\ X0)\wedge((v3\_relat\_2\ X1)\wedge((v8\_relat\_2\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v5\_relat\_1\ X2\ (k8\_eqrel\_1\ X0\ X1))\wedge(v1\_funct\_1\ X2)))\Rightarrow(\forall X3.(X3\in k9\_xtuple\_0\ X2)\Rightarrow((v1\_finset\_1\ (k1\_funct\_1\ X2\ X3))\wedge(m1\_subset\_1\ (k1\_funct\_1\ X2\ X3)\ (k1\_zfmisc\_1\ X0))))))) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ k5\_numbers)\Rightarrow(((v1\_prob\_2\ X0)\wedge((k9\_xtuple\_0\ X0=k4\_finseq\_1\ X1)\wedge(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((X2\in k9\_xtuple\_0\ X0)\Rightarrow((v1\_finset\_1\ (k1\_funct\_1\ X0\ X2))\wedge(k1\_funct\_1\ X1\ X2=k1\_card\_1\ (k1\_funct\_1\ X0\ X2)))))))\Rightarrow((v1\_finset\_1\ (k3\_card\_3\ X0))\wedge(k1\_card\_1\ (k3\_card\_3\ X0)=k16\_rvsum\_1\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Leftrightarrow(m1\_finseq\_1\ X1\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0)\Rightarrow(k5\_card\_1\ X0=k1\_card\_1\ X0) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_finseq\_1\ X0\ k5\_numbers)\Rightarrow(k2\_wsierp\_1\ X0=k16\_rvsum\_1\ X0) \tag{7}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_finset\_1\ X0))\Rightarrow(\forall X1.((v1\_partfun1\ X1\ X0)\wedge((v3\_relat\_2\ X1)\wedge((v8\_relat\_2\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v5\_relat\_1\ X2\ (k8\_eqrel\_1\ X0\ X1))\wedge(v1\_funct\_1\ X2)))\Rightarrow(\forall X3.(m2\_finseq\_1\ X3\ k5\_numbers)\Rightarrow(((v2\_funct\_1\ X2)\wedge((v2\_funct\_2\ X2\ (k8\_eqrel\_1\ X0\ X1))\wedge((k9\_xtuple\_0\ X2=k4\_finseq\_1\ X3)\wedge(\forall X4.(v7\_ordinal1\ X4)\Rightarrow((X4\in k9\_xtuple\_0\ X2)\Rightarrow(k1\_funct\_1\ X3\ X4=k1\_card\_1\ (k1\_funct\_1\ X2\ X4)))))))\Rightarrow(k5\_card\_1\ X0=k2\_wsierp\_1\ X3))))) $$