t14_ec_pf_1 (TMW4LjWgNiGUgv4Yzeos85gnb1rhi8UykYu)

October 27, 2020

Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k9\_int\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v3\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k7\_card\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $k6\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $g6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v36\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k7\_int\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_gr\_cy\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $u1\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $u2\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $u3\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u2\_struct\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X0) \vee ((v2\_xxreal\_0\ X1) \vee (v3\_xxreal\_0\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X0\ k6\_numbers) \wedge (r1\_xxreal\_0\ X0\ (k6\_int\_1\ X1\ X0)))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow ((r1\_xxreal\_0\ k6\_numbers\ X0) \Rightarrow (r1\_xxreal\_0\ k6\_numbers\ (k6\_int\_1\ X1\ X0)))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow((r1\_xxreal\_0\ k6\_numbers\ X0)\Rightarrow(X0\in k5\_numbers)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(X0\in X1)\Rightarrow(m1\_subset\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow((X0\in k7\_card\_1\ X1)\Leftrightarrow(\neg r1\_xxreal\_0\ X1\ X0))) \tag{7}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{8}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k7\_card\_1\ X0=k6\_card\_1\ X0) \tag{9}$$

Assume the following.

$$k6\_numbers=k1\_xboole\_0 \tag{10}$$

Assume the following.

$$k5\_numbers=k4\_ordinal1 \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (k2\_zfmisc\_1\ X0\ X0)\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)\ X0)))))\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ X0\ X0)\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)\ X0)))))\wedge((m1\_subset\_1\ X3\ X0)\wedge(m1\_subset\_1\ X4\ X0))))\Rightarrow(\forall X5.\forall X6.\forall X7.\forall X8.\forall X9.(g6\_algstr\_0\ X0\ X1\ X2\ X3\ X4=g6\_algstr\_0\ X5\ X6\ X7\ X8\ X9)\Rightarrow((X0=X5)\wedge((X1=X6)\wedge((X2=X7)\wedge((X3=X8)\wedge(X4=X9))))))) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow((\neg v2\_struct\_0\ (k9\_int\_3\ X0))\wedge(v36\_algstr\_0\ (k9\_int\_3\ X0))) \tag{13}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(l6\_algstr\_0\ (k9\_int\_3\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_funct\_1\ (k7\_int\_3\ X0))\wedge((v1\_funct\_2\ (k7\_int\_3\ X0)\ (k2\_zfmisc\_1\ (k7\_card\_1\ X0)\ (k7\_card\_1\ X0))\ (k7\_card\_1\ X0))\wedge(m1\_subset\_1\ (k7\_int\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (k7\_card\_1\ X0)\ (k7\_card\_1\ X0))\ (k7\_card\_1\ X0)))))) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1\ X0)\wedge(v1\_int\_1\ X1))\Rightarrow(v1\_int\_1\ (k6\_int\_1\ X0\ X1)) \tag{16}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_funct\_1\ (k3\_gr\_cy\_1\ X0))\wedge((v1\_funct\_2\ (k3\_gr\_cy\_1\ X0)\ (k2\_zfmisc\_1\ (k7\_card\_1\ X0)\ (k7\_card\_1\ X0))\ (k7\_card\_1\ X0))\wedge(m1\_subset\_1\ (k3\_gr\_cy\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (k7\_card\_1\ X0)\ (k7\_card\_1\ X0))\ (k7\_card\_1\ X0)))))) \tag{17}$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1\ (k1\_funct\_7\ X0\ X1)\ X1 \tag{18}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k6\_card\_1\ X0 = X0) \tag{19}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k9\_int\_3\ X0 = g6\_algstr\_0\ (k7\_card\_1\ X0)\ (k3\_gr\_cy\_1\ X0)\ (k7\_int\_3\ X0)\ (k1\_funct\_7\ np\_\_1\ (k7\_card\_1\ X0))\ (k1\_funct\_7\ k6\_numbers\ (k7\_card\_1\ X0))) \tag{20}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow((r1\_xxreal\_0\ X0\ X1)\vee(r1\_xxreal\_0\ X1\ X0)) \tag{21}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{22}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{23}$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0\ X0)\wedge(v2\_xxreal\_0\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(\neg v3\_xxreal\_0\ X0))) \tag{24}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v7\_ordinal1\ X0)\wedge(\neg v3\_xxreal\_0\ X0)) \tag{25}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))) \tag{26}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \tag{27}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_xreal\_0\ X0) \tag{28}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_int\_1\ X0) \tag{29}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0) \Rightarrow ((v36\_algstr\_0\ X0) \Rightarrow (X0 = g6\_algstr\_0\ (u1\_struct\_0\ X0)\ (u1\_algstr\_0\ X0)\ (u2\_algstr\_0\ X0)\ (u3\_struct\_0\ X0)\ (u2\_struct\_0\ X0))) \tag{30}$$

Theorem 1

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.((v7\_ordinal1\ X1) \wedge (v1\_int\_2\ X1)) \Rightarrow (m1\_subset\_1\ (k6\_int\_1\ X0\ X1)\ (u1\_struct\_0\ (k9\_int\_3\ X1))))$$