t24_ec_pf_2 (TMYzvtTXLhSrahwSgSYabYXu-GLoExNRqF6a)

October 27, 2020

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 $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k9\_int\_3 : \iota \Rightarrow \iota$ be given. Let $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k5\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v6\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v33\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v5\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l4\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l4\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (((r1\_xxreal\_0\ k6\_numbers\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \vee (k6\_int\_1\ X1\ X0 = X1))) \wedge ((r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ X1) \Rightarrow ((r1\_xxreal\_0\ k6\_numbers\ X1) \vee (k6\_int\_1\ X1\ X0 = k2\_xcmplx\_0\ X0\ X1))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(\forall X2.((v7\_ordinal1\ X2)\wedge(v1\_int\_2\ X2))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k9\_int\_3\ X2)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k9\_int\_3\ X2)))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ (k9\_int\_3\ X2)))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ (k9\_int\_3\ X2)))\Rightarrow(((X3 = k6\_int\_1\ X0\ X2)\wedge((X4 = k6\_int\_1\ X1\ X2)\wedge(X5 = k6\_int\_1\ (k6\_xcmplx\_0\ X0\ X1)\ X2)))\Rightarrow(k5\_algstr\_0\ (k9\_int\_3\ X2)\ (k8\_group\_1\ (k9\_int\_3\ X2)\ X3\ X6)\ (k8\_group\_1\ (k9\_int\_3\ X2)\ X4\ X6) = k8\_group\_1\ (k9\_int\_3\ X2)\ X5\ X6)))))))) \tag{3}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow(np\_\_1 = k5\_struct\_0\ (k9\_int\_3\ X0)) \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{5}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{6}$$

Assume the following.

$$k6\_xcmplx\_0\ np\_\_2\ np\_\_1 = np\_\_1 \tag{7}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_1\ np\_\_1 = np\_\_2 \tag{8}$$

Assume the following.

$$r1\_xxreal\_0\ np\_\_0\ np\_\_1 \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge((v5\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0)))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(k8\_group\_1\ X0\ X1\ X2 = k6\_algstr\_0\ X0\ X1\ X2) \tag{10}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{11}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{12}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow((\neg v6\_struct\_0\ (k9\_int\_3\ X0))\wedge((v13\_algstr\_0\ (k9\_int\_3\ X0))\wedge((v33\_algstr\_0\ (k9\_int\_3\ X0))\wedge((v3\_group\_1\ (k9\_int\_3\ X0))\wedge((v5\_group\_1\ (k9\_int\_3\ X0))\wedge((v2\_rlvect\_1\ (k9\_int\_3\ X0))\wedge((v3\_rlvect\_1\ (k9\_int\_3\ X0))\wedge((v4\_rlvect\_1\ (k9\_int\_3\ X0))\wedge((v4\_vectsp\_1\ (k9\_int\_3\ X0))\wedge(v5\_vectsp\_1\ (k9\_int\_3\ X0))))))))))) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1\ X0)\wedge(v1\_int\_1\ X1))\Rightarrow(v1\_int\_1\ (k2\_xcmplx\_0\ X0\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0)\Rightarrow((l2\_algstr\_0\ X0)\wedge(l5\_algstr\_0\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.(l5\_algstr\_0\ X0)\Rightarrow((l4\_algstr\_0\ X0)\wedge(l4\_struct\_0\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.(l4\_algstr\_0\ X0)\Rightarrow((l3\_struct\_0\ X0)\wedge(l3\_algstr\_0\ X0)) \tag{17}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(l6\_algstr\_0\ (k9\_int\_3\ X0)) \tag{19}$$

Assume the following.

$$\forall X0.(l3\_struct\_0\ X0)\Rightarrow(m1\_subset\_1\ (k5\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \tag{20}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l4\_algstr\_0\ X0))\Rightarrow((v4\_vectsp\_1\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow((k6\_algstr\_0\ X0\ X1\ (k5\_struct\_0\ X0) = X1)\wedge(k6\_algstr\_0\ X0\ (k5\_struct\_0\ X0)\ X1 = X1)))) \tag{21}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_int\_2\ X0)\Leftrightarrow((\neg r1\_xxreal\_0\ X0\ np\_\_1)\wedge(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\neg(r1\_int\_1\ X1\ X0)\wedge((X1\neq np\_\_1)\wedge(X1\neq X0)))))) \tag{22}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{23}$$

Assume the following.

$$\forall X0.(l4\_struct\_0\ X0) \Rightarrow ((\neg v6\_struct\_0\ X0) \Rightarrow (\neg v7\_struct\_0\ X0)) \tag{24}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_int\_1\ X0) \tag{25}$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0) \Rightarrow ((\neg v7\_struct\_0\ X0) \Rightarrow (\neg v2\_struct\_0\ X0)) \tag{26}$$

Theorem 1

$$\forall X0.((v7\_ordinal1\ X0) \wedge (v1\_int\_2\ X0)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k9\_int\_3\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k9\_int\_3\ X0))) \Rightarrow ((X1 = k6\_int\_1\ np\_\_2\ X0) \Rightarrow (k5\_algstr\_0\ (k9\_int\_3\ X0)\ (k8\_group\_1\ (k9\_int\_3\ X0)\ X1\ X2)\ X2 = X2))))$$